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ABSTRACT

A study examined the nature of family contributions to adolescent and adult learners' readiness for transition from school to work and any variations between the two groups. It used data from national samples of 1,266 high school seniors and 879 adults in one- and two-year postsecondary occupational education programs. Findings, based on an examination of a series of structural models linking family attributes to transition readiness, suggested that both unidirectional adult-to-child actions and the day-to-day relational elements of the family played a role in developing transition readiness for both adults and adolescents. Proactive family characteristics, such as being cohesive or expressive, having an active recreation orientation, and democratic decision making, contributed positively to transition readiness. Inactive family styles, such as being laissez-faire in decision making and/or enmeshed, worked against development of transition readiness. An authoritarian family functioning style made no contribution at all. Family characteristics seemed important in nurturing readiness for transition because families contributed to the development of family members' learning processes that, in turn, were useful in developing transition readiness. The role of their current family in developing transition readiness seemed similar for adults and adolescents. Important differences were found between present family and recollections of past family for adults. (Contains 131 references.) (YLB)

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LESSONS FROM LIFE'S FIRST TEACHER: THE ROLE OF THE FAMILY IN ADOLESCENT AND ADULT READINESS FOR SCHOOL-TO-WORK TRANSITION

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EXECUTIVE SUMMARY

Although the role of parents in children's academic achievement has featured prominently in recent national debates and policies, little is understood about the contributions of families in their children's preparation for work. This national study of 1,266 high school seniors and 879 adult two-year college students asked whether family plays a role in developing readiness for school-to-work transition and whether the family role differs for adolescent and adult learners. School-to-work transition readiness indicators in the study included measures of career maturity and selected work effectiveness skills.

The findings, based on examination of a series of structural models linking family attributes to transition readiness, suggest that family does play a role in the development of readiness for school-to-work transition among both adolescents and adults. It is not just the unidirectional adult-to-child actions (e.g., parent participation in school), so often highlighted in educational policy and practice, that seem to matter, however. The day-to-day relational elements of the family also seem to play a role in developing transition readiness for both adults and children. Proactive family characteristics, such as being cohesive or expressive, having an active recreation orientation, and democratic decision-making, contribute positively to readiness for school-to-work transition. Inactive family styles, such as being laissez-faire in decision making and/or enmeshed, work against development of readiness for school-to-work transition. An authoritarian family functioning style makes no contribution at all to school-to-work transition readiness among adolescents as defined in the study, although this style does seem to be associated with adolescents' plans to continue some form of education beyond high school.

Study findings suggest that family characteristics seem to be important in nurturing readiness for school-to-work transition because families contribute to the development of family members' learning processes, such as intrinsic and extrinsic motivation, self-efficacy, and critical thinking, which, in turn, are useful in developing transition readiness. The role of their current family in developing readiness for school-to-work transition seems to be similar for adults and adolescents. Important differences were found, however, between present family and recollections of past family for adults. Several implications are discussed for workforce education policy and practice and further research.

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INTRODUCTION TO THE STUDY

Current interest about the preparedness of American workers has sparked widespread discussions. Schools and families are two of the targets of the heated debates. This attention flows from broad public concerns about the quality of students' education, declining economic fortunes of both young and old, perceived deterioration in family life, and lagging U.S. economic competitiveness in world markets (Berryman & Bailey, 1992; Brustein & Mahler, 1994; Commission on the Skills of the American Workforce, 1990; Grissmer, Kirby, Berends, & Williamson, 1994; Kazis, 1993; Kerr, 1994; The William T. Grant Foundation, 1988). The goal of this study is to inspire and inform the conversations about work readiness by improving understanding of the complex relationships among individuals, their families, their learning, and their preparation to enter the world of work.

The transition from school to further occupational or educational roles is far from smooth for a large portion of the American population (Kazis, 1993). Too many young persons (perhaps half or more of high school graduates) flounder in unemployment, less than living-wage jobs, or ill-fitting college programs. Many adults lack the ability to improve employability skills or find more personally meaningful career directions, once initial occupational choices have been made (Herr & Cramer, 1992; The William T. Grant Foundation, 1988).

Yet, such transitions seem easier for some individuals than others. There are many examples of young people who know their career goals, who have realistically assessed both their personal abilities and the labor market projections, and who are ready to move smoothly from education to their chosen occupations. There are also adults who have successfully returned to school and are now pursuing new career goals. For every case of a clear career path, there are contrasting examples, such as the high school senior with vague or nonexistent occupational goals and plans, and the adult who is unable to chart a satisfying course for education and/or career. An intriguing question is, what accounts for these differences in ability to make successful school-to-work transitions?

The answer to the question is complex and embedded in an understanding of the relationships between many individual and societal characteristics. Use of the ecological systems theory (Bronfenbrenner, 1977) provides a framework to understand how individuals develop as a direct consequence of the interactions that take place between them

and their surrounding environments. For both young persons and adults, the family is widely regarded as the primary and most powerful influence on human development (Olson & Hanson, 1990). The dreams of parents for their children, the structures families build, the way they handle conflict and communication, and the feelings of parents toward work and learning may have powerful effects on the development of skills and attitudes necessary to succeed. Schools, religious institutions, neighborhoods, and the business community are other components of the ecological system that have an effect on the family. All of these elements interact to contribute to an individual's potential for smooth transition to work.

Conventional wisdom suggests important links exist between families, effective schools, and the ability to enact adult life roles such as work. In a February 15, 1994, address at Georgetown University, for example, U.S. Education Secretary Richard Riley spoke of how families are life's first teachers of lessons that are often never forgotten and that have profound social and economic consequences. Yet the role of this important "first teacher" has not been examined in much detail. Marshall and Tucker (1992) recently argued that "it will do the country little good . . . to restructure schools unless we make families better learning systems and include families as integral components of restructured schools" (p. 165).

Empirical evidence linking the family, and especially parental involvement in schooling, to academic achievement lends credibility to widely held public perceptions regarding the importance of ties between the family and educational efforts (Bempechat, 1990; Epstein, 1987; U.S. Department of Education, 1994). Surprisingly, though, relatively little research has been available to help examine the role families play in preparing individuals for work, either at particular points in time or throughout the lifespan (Entwisle, 1990; Gerstel & Gross, 1987; Way & Rossmann, 1994).

The need for information about family factors which may contribute to the school-to-work transition is particularly relevant today, given current attempts to implement the 1994 School to Work Opportunities Act and to fashion an appropriate sequel to the Carl Perkins Vocational Education and Applied Technology Education Act of 1990. Both policy initiatives emphasize improving the ability of individuals to make meaningful and efficient movements from school to work. Unfortunately, most recent education-for-work policy

proposals have overlooked or given narrowly conceived attention to links between family and work.

Kazis' (1993) discussion of the "school-to-work problem" is typical of current literature. Although it outlines thoughtful strategies for improving career preparation and provides a number of important recommendations for federal policy, it fails to address the question of whether family matters or what role the family might play in school-to-work transition. The School-to-Work Opportunities Act does mention parents as important participants in children's education, but primarily in terms of career exploration and choice and as a possible representative partner in designing and administering educational programs (Brustein & Mahler, 1994).

Goals 2000: Educate America Act, the recently adopted national education goals, emphasize the enhancement of learners' capacity for productive employment and the stimulation of parental participation in the education of their children. No connection is made, however, between parents and education for work. The references to parents in this policy initiative are laudable, but the fact that the policy ignores the link between families and preparation for work is a concern.

There seem to be some erroneous assumptions about families regarding their career development involvement; for example, the beliefs that all parents have equal capacities to fully and effectively support their members' career exploration and choice, educational program planning, and homework completion; assertions that a family's primary contribution to preparation for work occurs before adulthood, and during the child's adolescence; feelings that preparation for work universally occurs at distinct stages of life, which conveniently coincide with secondary and/or postsecondary school; or thoughts that a parent's involvement in educational activities contributes more to a child's preparation for work than do other aspects of daily family dynamics. One final assumption is that occupational work roles and family work do not interact in meaningful ways.

With few exceptions, current school-to-work literature also ignores a number of major changes in American family forms and functions that have occurred over the past quarter century; for example, increases in the number of single-parent families and the entry of large numbers of married women with children into the labor force (DelCampo, 1994; Furstenberg, 1990; U.S. House of Representatives, 1987). The absence of more

substantive policy-focused dialogue regarding associations between family, education, and transition-to-work appears to be a weak link in the process of designing current school-to-work opportunity initiatives.

Research Questions

In the interest of informing the present policy debate, as well as educational practice and research, this study addressed the following broad questions:

- Does the family contribute to learners' readiness for transition from school to work? If so, in what manner does the family contribute to learners' transition readiness?
- Does the linkage, if any, between family and transition readiness differ for adolescent and adult learners?
- What, if any, kind of attention should be given to the family by educators and policymakers interested in preparing youth and adults for the school-to-work transition?

Related Literature

Before turning to a discussion of the study methodology and findings, it is appropriate to step back and ask why, given the conventional wisdom that links family to educational achievement and school success in general, hasn't more attention been given to the family in education-for-work proposals?

Perspectives That Limit Visions of Work/Family Interconnectedness

Our analysis suggests that several factors have limited the inclusion of the family's influence in the current debates, practices, and policies.

Taylorism

Beginning in the early 1900s, the use of "scientific management" principles was an industry-based model widely attributed to Frederick Winslow Taylor (1911). Based on time and motion studies, this framework focused on improving production efficiency by

structuring work. In an assembly-line fashion, tasks were to be carefully divided, ordered, and carried out by workers under the close supervision of management. "Taylorism," as it is sometimes called, served as the framework for the "Five Dollar Day" initiated at the Ford Motor Company in 1914. A novelty of its time, this compensation package was to provide a living wage sufficient to fully support the families of male breadwinners. It also served, conceptually, to separate the family from the processes of production (May, 1987).

During the rise of industrialism, occupational work came to possess increasingly discrete and well-defined times and places. This direction served to conceptually disconnect occupational work from family work and also from the enactment of other key life roles such as the user of leisure or lifelong learner (Kliebard, 1990). Several scholars have argued that U.S. business has influenced educational practice and that both perpetuate the scientific management ideology of compartmentalizing roles, and that even in the face of evidence, this approach may no longer be functional (Bennett & LeCompte, 1990; Gray, 1993; Shedd & Bacharach, 1991; Wirth, 1992). A reasonable question is what is the extent to which school-to-work transition programs also reflect role compartmentalizations that are no longer functional and which separate the world of work from the world of family.

Instrumental Action

Instrumental action means judging the usefulness of acts and activities on the basis of demonstrable results (Kliebard, 1990). This philosophical orientation has historically been a strong guiding force of vocational education, as well as a cornerstone of U.S. education-for-work policy in the twentieth century. Within this view, the single most important outcome of education-for-work programs has been whether or not the program graduate possessed job skills necessary for employment in workplace settings. Although some scholars (e.g., Kliebard, 1990; Grubb & Lazerson, 1981) have questioned the success of vocational education from an instrumental action perspective, and others have questioned the educational appropriateness of the emphasis on skill outcomes (Rehm, 1989), instrumental action is still the dominant perspective for practice and policy regarding education for work. With this perspective, it is more difficult to include consideration of the role of the family in learning to work. In the past, the production of visible products such as food, clothing, and necessary services were generated by the family. With an instrumental action perspective, the products of family work today are much less tangible (though not actually less present) than they were in previous decades. The question raised

here is to what degree has this perspective limited the inclusion of key concepts in the debate about education-for-work policy and practice.

Male Experience Standard

The use of a male's experience has been a standard for educational practice and broader social policy and research. This is the third perspective that may limit possible visions of education for work. This premise is that there is a social differentiation of roles according to gender. To counteract this male-dominant model, federal legislation has emphasized the elimination of sex bias and sex role stereotyping for over a decade, particularly in the field of vocational education (e.g., 1990 Perkins Act - Title II Part B, Section 222 – Sex Equity Programs). Based on research documenting occupational segregation according to gender and an earnings gap between males and females, these programs have focused on providing training opportunities in nontraditional occupations for males and females and providing services for girls and women aimed at helping them enter fields that were formerly all male and become self-supporting.

The use of a male experience standard, however, still characterizes many related policies and research (Noddings, 1992). For example, special educational programs have often been designed for teen mothers with little or no attention to the responsibilities of teen fathers (Bogenschneider, Young, Melli, & Fleming, 1993). Researchers have also traditionally asked different questions about work and family roles for males and females (Kline & Cowan, 1989). Most research about the effects of unemployment, for example, has focused on the effects of *male unemployment* on individuals and families. Little attention has been given to the effects of female unemployment on the family. On the contrary, there has been much interest in *female employment* and its effects on the family, particularly on the development of young children in the family.

Such approaches are not surprising given persistent social norms that support different degrees of permeability in work/family boundaries for men and women (Pleck, 1977). It is still much more acceptable (even desirable) in the United States for men to place occupational work ahead of family work—for example, to stay late at work or to travel on business—and for women to place family work ahead of occupational work—for example, staying home to care for sick children or other family members.

Because of the greater interdependence of work and family for women, these differences often put women in a no-win position, regardless of which decision they make. For a woman, choosing not to work or to work only part time in order to care for her children may put her at a disadvantage when a strong work history may be needed for later employment. On the other hand, working mothers are at risk, too. Recently, for example, several divorced and separated female parents have had child custody orders challenged or reversed when they relied on day care to permit them to work and/or attend school (Brecher, 1995). Although there are important differences in the ways men and women form their work commitments and enact their work roles (Kline & Cowan, 1989; Pittman & Orthner, 1989), these differences do not seem to be part of the current educational policy debate. Most policy, in fact, tends to reflect the male experience standard of greater separation of work and family roles.

Policymaker's Socialization

Besides the possible limitations of the perspectives just discussed, others are probably also relevant to the limited attention which has been given to work/family interactions in educational policy and practice. One further limitation may be the unwitting use of an idealized notion of the family by policymakers and practitioners who grew up in the 1950s. During this time, public perceptions of the ideal family were represented in such television shows as *Ozzie and Harriett* and *Father Knows Best*, where mother stayed home, father worked outside the home, the two spheres rarely interacted, and all was well. Although the idealized male breadwinner family model represents only 7% of today's U.S. families (U.S. Bureau of the Census, 1992), it remains a strong symbol for many adults (Nickols, 1988). Further discussion of these perspectives and their relation to vocational education policy, practice, and research can be found in Way and Rossmann (1994).

Links Between Family and Work Readiness

Despite the limiting effect these perspectives may have had on educational policy, practice, and research, it would be misleading to suggest that there has been no research linking family to the development of work readiness characteristics. In fact, there has been a fair amount of it; most dealing with the relation of the family to career development outcomes such as career maturity and initial career choice. This literature, however, has thus far suffered from over-attention to vocational development outcomes at the expense of understanding vocational processes; failure to view the family context as a functioning

whole; a tendency to overlook gender differences; and lack of attention to testing causal patterns involving direct as well as indirect relationships among key process and outcome constructs (Grotevant & Cooper, 1988; Herr & Cramer, 1992; Schulenberg, Vondracek, & Crouter, 1984).

Existing research and theory suggests that a number of characteristics of the family are particularly relevant to vocational development. These include the location of the family in the broader social context (for example, socioeconomic status and racial/ethnic background); the structural features of the family such as single or dual parenthood; and family processes such as transmission of family work values, planned parental career-related interventions, and family interaction style (Schulenberg et al., 1984).

Family Interactions

Ann Roe (1956) was the first to suggest that family interaction was salient to the vocational development process. She theorized, for example, that early parent/child interactions resulted in a child having preferences for people rather than things. These early choices later resurfaced in the adult's occupational selections. Roe's work has since been followed by a number of research efforts examining family links to vocational development.

Recent studies provide several insights. It has been shown that parents transmit occupational values such as values of conformity or autonomy in work to their children (Kohn, 1977). It has also been shown that a family's socioeconomic status affects the nature and extent of career exploration (Grotevant & Cooper, 1988; Hageman & Gladding, 1983), occupational aspirations and expectations (Harvey & Kerin, 1978; MacKay & Miller, 1982; Marini & Greenberger, 1978), and occupational status attainment (Blau & Duncan, 1967; Gansemer, 1977; Mortimer, 1974, 1976). Parents are now known to initiate a number of different kinds of intentional career-related interactions with their children (Young & Friesen, 1992). Day-to-day patterns of family functioning, such as decision-making styles and degrees of conflict and cohesion, have been shown to be related to the development of career maturity among adolescents (Penick & Jepsen, 1992). Enmeshment in one's family of origin—for example, feeling pressured to spend most of one's free time with one's family—has also been shown to be associated with career indecision among university students (Kinnier, Brigman, & Noble, 1990).

System Interactions

The effects of gender, race, and family form on vocational development are evident in the literature for both youth and adults (Furstenberg, 1990; Goldsmith, 1989; Schulenberg et al., 1984). It is not yet clear, however, how these variables are mediated by other variables such as socioeconomic status and/or the timing and outcome(s) of changes in family form. Many of the patterns appear to be complex, multidimensional, and individualistic. For example, when a divorce occurs, the impact on the child's vocational development may depend upon the effect of the divorce on the financial situation for the adults and children, on the need for family relocation, and on the parents both remaining involved in parenting.

For adults, the potential impact of the family on vocational development is more complex. Recent research focusing on the relational contexts of development suggest that not only do individuals take with them through the lifespan the result of interaction in their family of origin, but they also subsequently add the influence of family structures they create (Grotevant & Cooper, 1985; Youniss & Smollar, 1985).

To date, however, much of the career development literature has been based on a "social mold" view of unilateral parent-to-child influence (Grotevant & Cooper, 1988; Hartup, 1978), rather than on a relational view of family interaction. In the social mold perspective, families are seen as supporting career development primarily through modeling appropriate career behaviors, providing enriching experiences for children, and supporting development of desirable work-related attitudes. In the relational view, the contexts of development are cast as transactional and reciprocal rather than unidirectional and are seen as providing "gateways or channels to an ever-widening range of experiences" (Hartup, 1986, p. 2), as opposed to specific guides for future behavior. Questions are being raised about the adequacy of the unidirectional model of family interaction for explaining the development of adult competence (Grotevant & Cooper, 1988). This model remains, however, in most current education for work policies and programs, as the dominant view of a family's role.

Links of Family to Learning Processes

Although individual and family characteristics have been empirically associated with vocational outcomes, little is known about how family-influenced learning processes affect vocational outcomes such as readiness for school-to-work transition. To clarify the

associations between family-affected learning processes and preparation for employment, it is helpful to look at how families contribute to learning. One commonly held set of beliefs is that parental involvement in school contributes to greater academic achievement among children. This assertion is widely supported by empirical evidence (Eastman, 1988; Epstein, 1984, 1987; Henderson, 1988; Long, 1986).

Extent of Family Influence

The scope of parental influence on learning is broad. Evidence suggests that parents either directly or indirectly influence all of the main determinants of cognitive, affective, and behavioral learning. These determinants include the student's abilities and motivations, as well as having an academically stimulating home environment, having an academically oriented peer group, and limiting television viewing (Walberg, 1984). It is known that the effectiveness of parents' involvement in their child's learning can be enhanced. School/family partnership programs established to boost academic achievement among young people have yielded effects exceeding those of socioeconomic status by as much as ten times (Bempechat, 1990; Walberg, 1984). Investigations making the linkage between parents' support of school learning and the role of parents in school-to-work transition, though, have been narrow in focus and few in number.

Relationship of Family and Preparation for Work

Little research exists to aid in understanding the linkages among family, work-related learning, and school-to-work transition among adults. Part of the reason for the lack of attention is that, until fairly recently, career choice and preparation were thought to be processes that were completed by early adulthood. Today, it is recognized that most adults make several career-related transitions throughout the lifespan, and that these transitions involve recycling through career development tasks previously accomplished (Levinson, 1978; Super, 1987).

Another explanation for the limited inquiry concerning family involvement in adult work-related learning is that social scientists have historically been more interested in the effects of work and the workplace on adults and families than in the reciprocity of these relationships (Schulenberg et al., 1984). In an interesting qualitative study, however, Crouter (1984) found educational as well as psychological spillover from family to work

among employees of a large manufacturing plant. Among the responses were explanations of how the family taught employees lessons that paid off on the job.

Research Model and Design

To address the questions of this research effort, a conceptual framework was developed that outlined causal relationships among the characteristics of individuals, characteristics of families, selected learning processes, and readiness for transition from school to work. The constructs in the model were operationalized and their relationships examined for both adolescent and adult learners using two similar data collection and analysis procedures.

Data for the study was gathered from two national samples of youth and adults in four states. A description of the respondents in the adolescent group is provided in the next two sections. Hypothesized models linking study constructs were tested using LISREL (Joreskog & Sorbom, 1993) structural equation modeling and SPSS (Norusis, 1990) logistics regression routines. Follow-up interviews were conducted with a small number of respondents in the youth sample. Funds were not available in this study for follow-up interviews with the adult respondents; however, a separate study to talk with the adults is in progress. Study methods and findings are presented in the next few sections of the report.

ROLE OF THE FAMILY IN READINESS FOR SCHOOL-TO-WORK TRANSITION: AN ADOLESCENT LEARNER MODEL

The first part of the research focused on experiences of adolescent learners. These students were seniors in high school, three to eight months away from graduation.

Methodology

Conceptual Model and Instrumentation

Figure 1 displays the model of family influences on adolescent readiness for school-to-work transition and identifies the variables selected as indicators of the model constructs. Data to test the model was collected using a 234-item survey questionnaire. The responses were recorded on optical scan sheets.[1]

Individual Characteristics

Social/structural characteristics of the individual included the learner's sex and race, his or her family socioeconomic status, and family form (single or dual parent). Socioeconomic status was measured using the Hollingshead (1975) four-factor index of social status, a calculated figure that accounts for the education and occupation of the male and/or female head(s) of household present in the nuclear family.

Family Characteristics

Family characteristics were measured by family functioning patterns, family work values, parents' intentional career-related interactions, and parents' participation in their child's schooling. Family functioning patterns were assessed using Bloom's (1985) 75-item survey consisting of 15 scales reflecting family relationship, system maintenance, and personal growth dimensions. This measure, based on prior family assessment instruments, is one of the most comprehensive available to assess characteristics of family functioning (Grotevant & Carlson, 1989). It has been used successfully to differentiate intact versus divorced families (Bloom, 1985). Scales measure family sociability;

[1] Data gathering instruments contained copyrighted materials. Copyright permissions do not permit further publication beyond the data gathering period.

Figure 1
Operationalization of the Conceptual Model for Adolescents

Study Constructs			
Individual Characteristics →	**Family Characteristics** →	**Learning Processes** →	**Readiness for School-to-Work Transition**
Indicator Variables			
Sex	Family Functioning Patterns	Motivated Strategies for Learning	
Race			
Socioeconomic Status	Family Work Values		Career Maturity Work Effectiveness Skills
Family Form	Parent Intentional Career-Related Interactions Parent Participation in Schooling	Academic and Social Integration into School	Post-High School Plans

expressiveness; enmeshment; disengagement; conflict; cohesion; intellectual, recreation, and religious orientations; democratic, authoritarian, and laissez-faire decision-making styles; organization; external locus of control; and family idealization.

A ten-item scale, adapted from existing instruments (Mortimer, Lorence, & Kunka, 1986), assessed family work values related to extrinsic and intrinsic work orientation and work autonomy. Items included family modeling and expectations about educational and career outcomes.

Another ten-item scale, based on qualitative research by Young and Friesen (1992), was developed to assess parents' intentional career-related interactions with children in the family. Intentional action is defined as acting to bring about a desired outcome (Chapman, 1984). A key characteristic of parental action is the notion of personal influence, usually either in outcomes or process (Brandtstadter, 1984; Young, Friesen, & Dillabough, 1991; Young, 1994). Using an intentional action perspective allows for a view of the reciprocal relationship parents have constructed with their children (Maccoby, 1992). Types of intentional parental career-related interactions addressed in the study included skill acquisition, facilitation of human relationships, increasing independent thinking and action, development of personal responsibility, enhancing self-image, and decreasing sex-role stereotyping.

Information on parent participation in schooling was collected using a 4-item scale developed for the study. The scale reflected a variety of typical types of parental involvement such as assistance with homework, attendance at school events, and discussion with school personnel about student progress (Epstein, 1987).

Learning Processes

Learning processes included students' motivated strategies for learning and integration into the school setting. Five scales of the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991) were selected to measure students' use of specific strategies in learning. A total of 25 items provided information about extrinsic and intrinsic goal orientations, self-efficacy in learning, effort regulation, and critical thinking as learning strategies. An eight-item scale, based on the work of Tinto (1975), was constructed to measure learners' academic and social integration in school. School integration has been associated with educational persistence and achievement in a number of studies (Bers & Smith, 1991; Ethington, 1990).

Readiness for Transition from School-to-Work

Readiness for school-to-work transition was operationalized by using two measures of career maturity, measures of work effectiveness skills, and post-high school plans. Holland's 18-item My Vocational Situation (MVS) scale (Holland, Daiger, & Power, 1985) measured career maturity from the perspective of vocational identity, that is, having a clear and stable picture of one's goals, interests, personality, and talents. Osipow's 18-

item Career Decision Scale (CDS) (Osipow, Carney, Winer, Yanico, & Koschier, 1980) assessed respondents' career maturity in terms of career indecision. Information was collected about learners' work effectiveness skills using 30 items of the Career Skills Assessment Program (College Entrance Examination Board, 1978) which dealt with identifying responsibilities of employers and employees, achieving effective working relationships, and managing work to achieve personal satisfaction. Finally, one item asked about post-high school plans with the response options being "no definite plans," "plans for work," and educational options such as "enter a two- or four-year college program" or "enter a technical college."

Data Collection

Data was collected from 12th-grade students in each of four U.S. geographic regions. States were randomly selected from each region: Pennsylvania – Northeast; Georgia – South; Minnesota – Midwest; and Arizona – West. Leaders in vocational education were asked to nominate senior high schools in their states that they considered representative of urban, suburban, midsize, and rural district locations. Data collection coordinators were identified in participating schools to supervise the distribution and collection of study questionnaires. Questionnaires were administered to classes of upper-level high school students deemed by school administrators and data collection coordinators to be representative of the general 12th-grade school population.

Data collection began in late fall of 1993 and continued through March of 1994. A total of 1,409 questionnaires were received during the data collection period. Of these, 1,266 (90%) contained complete datasets which were used to test the proposed model of family influence on school-to-work transition readiness.

Although four states were selected for data collection, most of the respondents in the final sample represented three of the four states. A total of 715 (56.5%) were from Georgia, 197 (15.6%) were from Arizona, 308 (24.3%) were from Minnesota, and 43 (3.4%) were from Pennsylvania. In 1992, the latest year for which figures are available, actual public elementary and secondary school enrollments in the south did comprise a larger percentage of the total school enrollments than other regions, though not as large as that for respondents in this study; 35.5% of actual U.S. total enrollments are now in the southern states region compared to 17.6% in the northeast, 24.1% in the midwest, and 22.5% in the west (Smith, Rogers, Alsalam, Perie, Mahoney, & Martin, 1994).

Somewhat more of the respondents were from metropolitan areas (35.9% suburban, 12.4% urban, and 8.7% midsize cities) than rural areas or small towns (42.8%). Currently, about 75% of U.S. elementary and secondary school students are enrolled in metropolitan areas (Bruno & Adams, 1994). Most of the respondents were aged 17 and above (85.0%); 12.2% were age 15 or 16. There were more female respondents (58.7%) than male (39.7%).

The final sample represented the U.S. secondary school population well, in terms of race and family background. Of the usable returns, 69.9% were from students who identified themselves as white; the rest were self-identified as members of minority groups. According to the latest available statistics, 69.6% of U.S. elementary and secondary school students are white, and the rest (30.4%) are minorities. Students in single-parent families comprised 23.3% of the respondents. Of the public U.S. elementary and secondary school population, 24.7% live in a single-parent family (Digest of Education Statistics-1993, 1994).

To determine whether the overrepresented numbers of respondents from southern and rural/small town regions and underrepresented numbers from the northeast region would bias study results, a series of one-way analyses of variance was conducted to determine if differences emerged in key dependent and independent study variables according to the location of respondents. No troublesome differences were found. For example, no systematic differences ($p \leq .05$) were found in the career maturity measures or work effectiveness skills mean scores according to respondents' city or state size. The only systematic difference in family functioning ($p \leq .05$) according to city or state size appeared in just one of the 15 family functioning scales, that dealing with religious orientation. Respondents from Georgia reported greater degrees of religiosity than those in each of the other states.

Instrument Reliability

Reliability estimates reflecting internal consistency of the scales and subscales used in the study are provided in Table 1. Where appropriate, the reliabilities disseminated with adopted instruments are also provided.

As shown, estimates for the measures of career maturity, work effectiveness skills, parental-intentional interactions, family work values, school integration, and learning

strategies scales were at or above acceptable levels (Borg & Gall, 1989). Several of the individual family functioning scale reliabilities were lower than desirable, which may be partially explained by the small number of items in these scales. Individual scales were grouped using factor analysis for subsequent testing of relationships in the hypothesized structural model. The derived factor structures are provided in Table 2.

Factor Structures for Study Constructs

Prior to testing the adolescent model of family influences on readiness for school-to-work transition, the underlying structures of the scales comprising the measures of the constructs were examined using factor analysis. Derived factor matrices, shown in Table 2, indicated the scales for learning strategies comprised a single factor, the scales for academic and social integration in school represented a single factor, and that those for family work values did, as well.

The 15 scales of the family functioning pattern instrument loaded on three factors, which were labeled "proactive functioning," "dominating functioning," and "inactive functioning" (Table 2). These summary patterns of family-wide functioning are similar, though not identical, to the widely accepted Baumrind (1967) concept of differentiated parenting styles characterized as autocratic, or authoritarian; indifferent, or uninvolved; and authoritative, or warm and active, yet firm. Factor scores based on these three dimensions of family functioning were used in subsequent analyses.

Proactive (authoritative) parenting has been associated with several positive indicators of psychosocial development among adolescents, such as greater degrees of psychological autonomy, self-esteem, mental health, self-reliance, academic and social competence, impulse control, and social responsibility (Maccoby & Martin, 1983). An indifferent parenting style is known to place adolescents at greater risk of problem behaviors such as drug and alcohol use and delinquency. Those raised in authoritarian households typically fall between those in the other two types of households on measures of social competence, self-reliance, self-esteem, and other measures of psychosocial development (Steinberg, 1990). It is believed that the consequences of parenting style hold up across race and socioeconomic groups, as well as through varying family forms (Dornbusch et al., 1985; Dornbusch, Ritter, Liederman, Roberts, & Fraleigh, 1987; Steinberg, 1990).

Table 1
Adolescent Instrument Scale Reliabilities

Instrument Scale(s)	Present Study	Original Disseminated Reliabilities
Intentional Interaction Scale	.80	NA
Family Functioning Scales (Bloom, 1985)		
Family Sociability	.54	.71
Religious Orientation	.71	.88
Expressiveness	.69	.77
Enmeshment	.53	.78
Disengagement	.40	.66
Conflict	.67	.76
Laissez-Faire Family Style	.49	.71
Intellectual/Cultural Orientation	.52	.71
Active/Recreation Orientation	.56	.57
Authoritarian Family Style	.49	.40
Cohesion	.76	.78
Organization	.58	.74
Democratic Family Style	.66	.65
External Locus of Control	.55	.67
Family Idealization	.82	.84
Family Work Values		
Extrinsic Orientation	.72	NA
Intrinsic Orientation	.70	NA
Work Autonomy	.62	NA
School Integration	.72	NA
Personal Integration	.64	NA
Academic Integration	.55	NA
Learning Strategies(Pintrich et al., 1991)	.87	
Extrinsic Goal Orientation	.74	.62
Intrinsic Goal Orientation	.66	.74
Self-Efficacy	.81	.93
Critical Thinking	.72	.80
Effort Regulation	.49	.69
Parent Participation in School	.69	NA
Career Decision Scale (Osipow et al., 1980)	.82	.84
My Vocational Situation (Holland et al., 1985)	.85	.80s
Work Effectiveness Skills		
(College Entrance Examination Board, 1978)	.95	
Responsibility of Employers/Employees	.87	NA
Effective Relations	.88	NA
Managing for Personal Satisfaction	.87	NA

Table 2
Derived Factors for Adolescent Model Constructs

Constructs	Factors and Subscales	Subscale Loadings
Motivated Strategies for Learning	*Factor 1*	
	Self-Efficacy	.81
	Intrinsic Motivation	.75
	Critical Thinking	.69
	Extrinsic Motivation	.60
	Effort Regulation	.42
Family Work Values	*Factor 1*	
	Intrinsic Orientation	.83
	Work Autonomy	.78
	Extrinsic Orientation	.63
Integration into School	*Factor 1*	
	Academic Integration	.87
	Social Integration	.79
Family Functioning Patterns	*Factor 1* (Proactive Functioning)	
	Cohesion	.81
	Family Idealization	.75
	Expressiveness	.74
	Democratic Decision-Making	.74
	Active/Recreation Orientation	.62
	Sociability	.61
	Conflict	-.53
	External Locus of Control	-.52
	Intellectual/Cultural Orientation	.52
	Disengagement	-.47
	Religious Orientation	.43
	Organization	.36
	Factor 2 (Dominating Functioning)	
	Authoritarian Decision-Making	.75
	Factor 3 (Inactive Functioning)	
	Enmeshment	.71
	Laissez-Faire Decision-Making	.40
Readiness for School-to-Work Transition	*Factor 1*	
	My Vocational Situation (vocational identity)	.94
	Work Effectiveness Skills	.55
	Career Decision Scale (career indecision)	-.46
	Post-High School Plans	.14

The derived factor structure developed for indicators of readiness for transition from school-to-work (two measures of career maturity, work effectiveness skills, and the single item post-high school plans) showed that the post-high school plans item did not load well with the others (Table 2). Thus, the post-high schools plans measure was excluded from the school-to-work transition readiness construct for the initial analysis of the hypothesized model and was examined in a separate analysis.

Analysis

The test of the hypothesized model of family influences on adolescent transition readiness was conducted using the LISREL Version 8 (Joreskog & Sorbom, 1993). Constraining the model to the same assumptions as ordinary least squares (no latent constructs), direct, indirect, and total effects were estimated to identify linkages among variables. In LISREL, indirect effects are computed as the difference between total effects and direct effects. A follow-up analysis using logistics regression (Norusis, 1990) was conducted to determine how model constructs contributed to students' post-high school work and education plans, or lack of them.

Results and Discussion

Mean scores and standard deviations for each of the observed variables in the model of adolescent transition readiness are provided in Table 3. The intercorrelations among the constructs in the hypothesized model of adolescent experiences are provided in Table 4.

Respondent Characteristics

Students generally viewed their families in more positive than negative ways (Table 3), a finding similar to that of previous research with same-age students (Penick & Jepsen, 1992). For example, students reported more cohesion than conflict or disengagement in their families and saw them as more democratic than authoritarian or laissez-faire. Compared to other characteristics of family functioning, students saw their families as quite sociable, cohesive, and religious. Respondents reported a fair amount of parental intentional interaction—for example, making job-related contacts regarding careers—and fairly strong family work values, such as modeling the importance of jobs. Effort regulation was used to a somewhat lesser extent by respondents than other learning

Table 3

Means and Standard Deviations for Adolescent Observations

Variable	Mean	SD	Min.-Max. Score
Parent Participation in School	9.10	2.78	4-16
Intentional Interaction	31.73	5.32	10-40
Family Work Values			
Extrinsic Orientation	9.44	2.16	3-12
Intrinsic Orientation	9.71	1.99	3-12
Work Autonomy	6.28	1.47	2-8
Proactive Functioning			
Cohesion	14.56	3.33	5-20
Family Idealization	11.94	3.45	5-20
Expressiveness	13.86	3.21	5-20
Democratic Decision-Making	13.22	3.06	5-20
Active/Recreation Orientation	13.41	3.01	5-20
Sociability	14.83	2.88	5-20
Conflict	11.47	3.31	5-20
External Locus of Control	10.61	2.70	5-20
Intellectual/Cultural Orientation	11.87	2.92	5-20
Disengagement	12.55	2.50	5-20
Religious Orientation	14.32	3.60	5-20
Organization	12.70	2.95	5-20
Dominating Functioning			
Authoritarian	12.15	2.66	5-20
Inactive Functioning			
Enmeshment	10.29	2.69	5-20
Laissez-Faire	10.85	2.70	5-20
Learning Strategies			
Self-Efficacy	21.40	3.67	7-28
Intrinsic Motivation	11.39	2.33	4-16
Critical Thinking	14.04	2.74	5-20
Extrinsic Motivation	12.32	2.55	4-16
Effort Regulation	10.70	2.10	4-16
Integration in School			
Academic	11.81	2.41	4-16
Social	11.40	2.69	4-16
Transition Readiness			
My Vocational Situation	8.04	5.57	0-18
Work Effectiveness Skills	12.63	9.57	0-30
Career Decision Scale	37.42	8.58	18-72
Sex	1.60	.49	1-2
Race	.70	.46	0-1
Socioeconomic Status	38.44	10.94	14-66
Family Form	.77	.42	0-1

Table 4

Intercorrelations Among Variables in the Adolescent Model

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Parent Participation in School	1.00												
2. Intentional Interaction	.21	1.00											
3. Family Work Values	.00	.31	1.00										
4. Proactive Functioning	.37	.55	.28	1.00									
5. Dominating Functioning	.04	.11	.04	-.01	1.00								
6. Inactive Functioning	.12	.01	-.14	-.01	-.01	1.00							
7. Learning Strategies	.20	.31	.40	.31	.03	-.10	1.00						
8. Integration in School	.30	.29	.34	.31	.08	-.11	.61	1.00					
9. Transition Readiness	.00	.14	.18	.15	.02	-.19	.22	.21	1.00				
10. Sex	-.09	.08	.23	.03	.02	-.20	.08	.15	.18	1.00			
11. Race	-.03	.04	.01	-.03	-.06	-.08	.01	.06	.17	-.06	1.00		
12. Socioeconomic Status	.10	.12	.05	.13	-.05	-.07	.06	.11	.08	-.09	.30	1.00	
13. Family Form	.11	.14	-.01	.14	.19	-.06	.02	.08	.08	-.06	.33	.09	1.00

strategies. Indicators of transition readiness were modest, reflecting considerably lower levels of vocational identity and higher levels of career indecision than that typically found, for example, among entering college freshmen (Hartman, Fuqua, Blum, & Hartman, 1985; Holland, Gottfredson, & Power, 1980; Lucas, Gysbers, Buescher, & Heppner, 1988). Work effectiveness skills scores were also quite modest.

Overall Effects in the Model

Table 5 provides the estimated total, direct, and indirect effects among the variables in the hypothesized model of adolescent transition readiness.

Total Effects

Of the 12 possible variables, six exerted significant total effects on transition readiness: sex, race, family work values, two of the family functioning constructs (proactive functioning and inactive functioning), and motivated strategies for learning. Sex exerted the greatest of these significant total effects and family work values the least. Race, the family functioning styles, and learning strategies exhibited total effects on transition readiness that were approximately equivalent. The relationships between the proactive and inactive family functioning styles and transition readiness went in the expected directions.

The total effects findings are consistent with a good deal of literature which suggests both females and whites possess greater degrees of career maturity in terms of vocational identity and career indecision than males and members of minority groups (Herr & Cramer, 1992; Neely, 1980; Westbrook, Cutts, Madison, & Arcia, 1980). The findings are also consistent with the literature describing the power of warm and actively managed family functioning over functioning which is domineering or authoritarian, or lacking in control (Steinberg, 1990). What is noteworthy about these findings is that they suggest that a relational model of development, which acknowledges reciprocal transactions between family members, rather than simply unidirectional influences, may be appropriate for understanding and nurturing the development of adolescents' readiness for school-to-work transition.

Table 5

Direct (D), Indirect (I), and Total (T) Effects of Variables in the Model of Adolescent School-to-Work Transition Readiness (Standardized Coefficients)

	Transition Readiness			*Learning Strategies*			*Integration in School*			*Proactive Functioning*		
Variable	D	I	T	D	I	T	D	I	T	D	I	T
Learning Strategies	.13*	...	.13*									
Integration in School	.06	...	.06									
Proactive Functioning	.10*	.02*	.12*	.10*	...	.10*	.10*	...	.10			
Dominating Functioning	.02	.00	.02	.00	...	.00	.05*	...	.05*			
Inactive Functioning	-.12*	-.02*	-.14*	-.08*	...	-.08*	-.08*	...	-.08*			
Family Work Values	.02	.06*	.08*	.33*	...	.33*	.25*	...	.25*			
Parent Intentional Interaction	.01	.02*	.03	.13*	...	.13*	.09*	...	.09*			
Parent Participation in School	-.05	.03*	-.02	.15*	...	.15*	.27*	...	.27*			
Sex	.13*	.06*	.19*	-.01	.10*	.09*	.09*	.07*	.16*	.05	...	.05
Race	.16*	.00	.16*	.01	-.03*	.02	.06*	-.05*	.01	-.13*	...	-.13*
Socioeconomic Status	.00	.04*	.04	.00	.08*	.08*	.04	.08*	.12*	.16*	...	.16*
Family Form	.01	.03*	.04	-.04	.06*	.02	.00	.08*	.08*	.17*	...	.17*

Dominating Functioning			*Inactive Functioning*			*Family Work Values*			*Parent Intentional Interaction*			*Parent Participation in School*		
D	I	T	D	I	T	D	I	T	D	I	T	D	I	T
.03	...	.03	-.21*	...	-.21*	.23*	...	.23*	.09*	...	.09*	-.08*	...	-.08*
-.13*	...	-.13*	-.06*	...	-.06*	.00	...	.00	-.04	...	-.04	-.12*	...	-.12*
-.03	...	-.03	-.06*	...	-.06*	.07*	...	.07*	.13*	...	.13*	.11*	...	.11*
.24*	...	.24*	-.05	...	-.05	-.01	...	-.01	.14*	...	.14*	.14*	...	.14*

*$t \geq 1.96$; $p \leq .05$; Sex: 1 = male, 2 = female; Race: 0 = nonwhite, 1 = white; Family Structure: 0 = single parent, 1 = dual parent

Direct Effects

The significant direct paths among the variables are illustrated in Figure 2. Except for family work values, each of the variables with significant total effects on transition readiness also exhibited significant direct effects on readiness. The following directly contributed to a student's transition readiness: motivated strategies for learning (extrinsic and intrinsic forms of motivation and learning skills such as critical thinking, effort regulation, and self-efficacy); sex; race; and two styles of family functioning (proactive and inactive). Apparently, being white and female is more supportive of readiness for a transition to work at the end of high school than being male or a member of a minority group. Having a family that is proactive in its functioning directly supports transition readiness, while having a family with an inactive functioning style works against it.

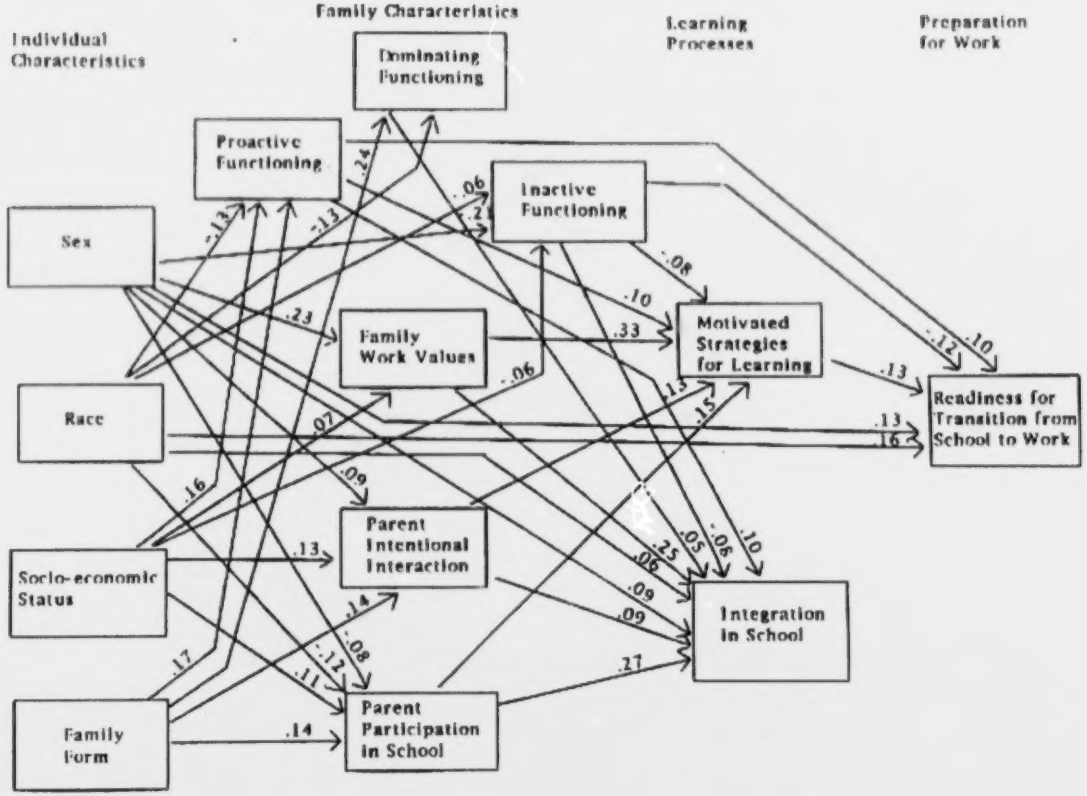
Family Functioning Style

Proactive family functioning, as defined in the present study, provides family members with opportunities to explore their world more broadly in the following ways: by providing opportunities supportive of intellectual and social development; developing a sense of personal security; developing confidence in expressing oneself and making one's own decisions; developing organizational skills and abilities; and developing ways of confronting and managing conflict. Thus, it is not surprising that a proactive family functioning style was directly supportive of greater use of motivated strategies for learning among the adolescent respondents. An inactive family functioning style, characterized by laissez-faire decision-making (lacking a framework for action) and/or enmeshment (a prescribed and difficult-to-escape framework for action) worked against use of such learning strategies. Family work values, parental career-related interactions, and parental participation in school were also linked directly and positively to adolescents' motivated strategies for learning.

Students' Integration in School

Each of the family functioning attributes specified in the model contributed significantly to students' integration into the school setting. Such integration in school has been associated with educational persistence and academic success (Bers & Smith, 1991; Tinto, 1975). It does not appear, however, at least in this sample, that the idea extends to becoming ready for transition from school to work. This finding is perhaps further

Figure 2
Adolescent Transition Readiness Model
Significant Direct Effects



*p ≤ .05; Sex: 1 = male, 2 = female; Race: 0 = nonwhite, 1 = white; Family Structure: 0 = single parent, 1 = dual parent

evidence that secondary schools simply have not given as much attention to school-to-work transition as to the pursuit of other goals such as students enrolling in higher education (The William T. Grant Foundation, 1988).

Sex

Moving further away from transition readiness to the exogenous variables in the model, it is possible to examine how social and structural characteristics exert their influence through the family and through students' approaches to learning. For example, judging from the number of significant direct effects of sex on various family characteristics, it appears that the family is experienced (or at least perceived) quite differently by males and females. The males in this sample reported more inactive functioning in their families and more parent participation in school, while the females perceived greater career-related interaction with their parents and stronger work values in their families. Males and females were similar in their perceptions of proactive and dominating styles of functioning in their families.

The finding of greater perceived inactive family functioning among male adolescents is consistent with other literature suggesting that parent-child interactions occurring in adolescence are different for girls and boys (Mann, 1994). A specific example is that mothers have been found to exert more power over daughters after puberty than before, while boys are known to assert themselves more as puberty progresses (Brooks-Gunn & Reiter, 1990). Gender differences in terms of family and friends, power, achievement, and division of labor at home and at work have been previously well-documented (Lips, 1988).

Race

The direct links between race and other variables in the model indicate that whites and nonwhites also differ in how the family is experienced or at least perceived. Nonwhite adolescents saw their families as more proactive and dominating in their functioning styles, as well as more inactive than whites. These perspectives appear to reflect a family experience which is perceived as more intense among nonwhites than among whites. Nonwhite respondents also saw their families as more extensive participants in their schooling than did whites. The instrument used in this study, however, did not permit examination of the causes of parent participation in school. For example, some items on

the instrument, such as interacting with school personnel about student performance or helping with homework may represent a proactive response on the part of the family and/or a reaction to less-than-desirable student performance.

Socioeconomic Status

As shown in Figure 2, socioeconomic status contributes directly to almost every attribute of family functioning incorporated in the model of adolescent school-to-work transition readiness. The greater the respondents' socioeconomic status, the more likely they were to see their families' style as proactive and the less likely they were to see the style as inactive. Students from higher socioeconomic status families also perceived more interaction with their parents about careers and greater degrees of parental participation in school. These attributes in turn assisted in the development of relevant learning strategies. Prior research has found that poor children are likely to be less employable, due to the lack of respect and attention they have received (Preston, 1984).

There are a number of reasons students' family experiences may be enhanced by higher socioeconomic status. Greater family economic resources may permit more ready access to at least some resources supportive of intellectual, cultural, and recreational activities. Economic resources may also permit family members to more easily achieve physical and psychological distance from one another, serving to reduce conflict and enhance cohesion and sociability. Greater degrees of education may serve to provide broader awareness of growth opportunities and perhaps enhance comfort in interacting with educational partners outside of the family.

Family Form

As might be expected, direct linkages were also found between family form and several aspects of family functioning as perceived by the adolescent respondents. As shown in Figure 2, a proactive family functioning style, greater parental career-related interaction with children, and greater parent participation in school were associated with the dual-parent family form. A dominating family functioning style was also directly associated with the dual-parent family form. Although no two families of any kind can be expected to deal with responsibilities in the same way, the role strain and economic disadvantages associated with the single-parent family style have been well-documented in

the literature (Burge, 1991; Garfinkel & McLanahan, 1986; McLanahan, 1985; Norton & Glick, 1986; Walters, 1988).

Indirect Effects

The patterning of significant paths among the variables provides insight into how the family contributes indirectly, as well as directly, to the process by which adolescents develop readiness for transition from school to work.

Family Functioning

Day-to-day family functioning patterns which are transactional in nature contribute not only directly to transition readiness but also indirectly through their influence on the development of learning strategies that have an impact on preparation for work (Table 5). The positive contribution of proactive family functioning and negative contribution of inactive family functioning to motivated strategies for learning and transition readiness is consistent with Penick and Jepson's (1992) findings which linked enmeshment and disengagement in the family to adolescents' inability to form career identities. They speculated that adolescents from enmeshed families may have difficulty in differentiating their own from their parents' goals and that those from disengaged families may lack the support and interaction needed to develop self-knowledge.

Family Work Values, Parental Intentional Interactions, and Parent Participation in School

Three other attributes of family functioning, family work values, parents' intentional interactions with children, and parent participation in school also contribute significantly to transition readiness, but indirectly through their effect on students' motivated strategies for learning (Table 5). Students' approach to learning, and subsequent school-to-work transition readiness, is likely to be greater if they have families characterized by stronger work values (extrinsic and intrinsic orientations and work autonomy) and parents who engage in greater intentional interactions with them about careers, including those which extend beyond career exploration and choice. Learning approaches and transition readiness are also likely to be greater for learners whose parents take an active role in their schooling process.

Socioeconomic Status

The powerful impact of socioeconomic status on adult occupational outcomes is well-documented in the literature (Blau & Duncan, 1967). Among young people, socioeconomic status has been found to be more useful in predicting the maturity of career attitudes than many other constructs such as self-concept, sex, race, or place of residence (Holland, 1981).

The results of the present study suggest that for adolescents, socioeconomic status does not exert all of its effects on preparation for work roles directly, and that, in fact, the effect is exerted only indirectly, through the character of functioning within the family. In this study, socioeconomic status exerted no significant total effect or direct effect on adolescents' readiness for transition from school to work, but there was a significant indirect effect of socioeconomic status on transition readiness. Thus, high socioeconomic status does not appear to provide a guarantee of transition readiness, nor does lower socioeconomic status appear certain to prevent it; the effect is mediated by the nature of transactions in the family.

The fact that there were significant indirect effects of socioeconomic status on adolescent transition readiness, but not significant direct or total effects, indicates that in the final analysis, what happens in the family may well be more important to transition readiness than socioeconomic status per se.

Family Form

The effects of family form on school-to-work transition readiness are particularly interesting, given current concern about the changing American family, including the increasing numbers of children living in single-parent families (Furstenberg, 1990). In the results of the present study, family form (single versus dual parent) does not exert a significant total effect on transition readiness, but it does appear to contribute to it through significant indirect effects on family functioning style, parent intentional interaction, and parent participation in school. Living in any particular family form, such as a single-parent family, does not have a direct negative effect on developing readiness for transition from school to work, but the impact may be mediated by what happens in the family. It does appear that living in a dual-parent family makes proactive family functioning easier (at least as perceived by adolescents). The dual-parent family also seems to facilitate parent intentional interaction and parent participation in school.

Family Functioning Style and Family Work Values

Of the family environment characteristics, family functioning style and family work values appear to be important attributes, since they exert significant total effects on transition readiness. However, the relational aspects of the family context, such as those represented by family functioning style, are typically overlooked in school-to-work initiatives and more general proposals for education reform, even when the family is acknowledged as an important participant. Typical examples of these initiatives are the School-to-Work Opportunities Act of 1994 and the national educational goals agenda, Goals 2000. Attention is more frequently given to how parents contribute to career exploration and choice (as in intentional interactions) or how parents can support children's homework or participate in the planning and operation of educational programs (parent participation in school). While certainly relevant, these assigned roles for parents represent a unidirectional model of parent-to-child influence which fails to adequately capture the full role the family can (and does) play in the school-to-work transition process. This characterization of the family also ignores perspectives that suggest learning to work is a lifelong process rather than something completed when children leave the original parental nest (e.g., Berryman & Bailey, 1992; Smolak, 1993; Super, 1984).

Predictors of Adolescent Post-High School Plans

Besides examining students' transition readiness with respect to work effectiveness skills and career maturity, the study examined whether students had specific plans for work or further education after high school. A logistics regression analysis (Norusis, 1990) was completed to determine if the factors explaining students' possession of post-high school plans were similar to or different from those explaining transition readiness (career maturity and work effectiveness skills). The results are given in Table 6. Four of the predictor variables exert significant effects on the odds of having definite post-high school plans for work or education versus having no plans. These include socioeconomic status, living in a family characterized by a controlling environment, having available motivated strategies for learning, and being well-integrated socially and academically in school. The differences between these results and those in the test of the model of transition readiness are interesting. In both models, socioeconomic status and learning strategies make significant contributions to the outcome variable. However, school integration and a controlling family environment make significant contributions to having post-high school plans but not transition readiness, as indicated by career maturity and work effectiveness skills.

Table 6
Logistic Regression Model for Having Post-High School Plans Versus Having No Plans (N=1,266)[1]

Variable	B	S.E.	Exp(B)[2]	Sig.
Sex	.100	.181	1.105	.579
Race	-.357	.200	.699	.074
Socioeconomic Status	.044	.009	1.045	.000
Family Form	-.049	.215	.952	.819
Proactive Functioning	.058	.111	1.059	.601
Dominating Functioning	.201	.090	1.223	.026
Inactive Functioning	-.009	.089	.991	.920
School Integration	.076	.026	1.079	.003
Learning Strategies	.225	.111	1.253	.043
Parent Participation in School	.036	.036	1.037	.318
Intentional Parent Interaction	.008	.019	1.037	.683
Family Work Values	-.099	.098	1.008	.314
Constant	-1.790	.928	.906	.054

[1] Plans = 1,100 (86.9%), No Plans = 166 (13.1%); Model $X^2 = 78.64$, $p = .000$

[2] The exponentiation of the regression coefficient (B) or odds effect = e^B. This value, which is always positive because of the nature of exponentiation, represents the multiplicative impact of the predictor variable on the odds. Odds effects greater than 1.0 reflect increases in odds per unit change in the predictor variable; odds effects less than 1.0 reflect reductions in odds (Norusis, 1990).

As shown in Table 6, learning strategies and controlling family style have the greatest effect on the odds of having post-high school plans versus not having any plans. These odds are increased by 25% for each unit increase in learning strategies, by 22% for each unit increase in controlling family style, by 8% for each unit increase in school integration, and by 4% for each unit increase in socioeconomic status.

The contrasting results between the two models may be explained by examining the differences associated with making plans for a particular post-high school work or education pursuit versus having a real sense of readiness to make and enact career choices. A controlling family style, for instance, may be effective in getting a child to college. Merely arriving at college, however, is no guarantee that the individual will have a vocational identity which is adequate to set a personally meaningful, satisfying, and effective career course. Similarly, feeling comfortable in school environments may contribute to the likelihood that individuals will seek out further education, but again, such comfort may not, in itself, guarantee readiness for transition from that school environment to meaningful work.

ROLE OF THE FAMILY IN ADULT READINESS FOR SCHOOL-TO-WORK TRANSITION: TWO PERSPECTIVES ON FAMILY CONTRIBUTIONS

The second phase of the present study examined the role of the family in the development of readiness for school-to-work transition among adult learners. These students were enrolled in postsecondary college programs that emphasized preparation for employment.

Methodology

Models and Instrumentation

Two models of family influence on adult school-to-work transition readiness were developed for the study. One model addressed contributions of the *family of origin* to transition readiness, and the other outlined contributions of the *present family*. Data to test the models was collected using a 250-item survey questionnaire. The responses were recorded on optical scan sheets.

As shown in Figure 3, the key constructs in the adult models of transition readiness were the same as those in the model of adolescent experiences. Several of the indicators of the constructs, however, were modified to reflect adult development concepts.

Figure 3
Operationalization of the Adult Transition Readiness Models

Study Constructs			
Individual Characteristics →	**Family Characteristics** →	**Learning Processes** →	**Preparation for Work**
Family of Origin			
Sex	Family of Origin Functioning Patterns	Motivated Strategies for Learning	Career Maturity Work Effectiveness Self-Appraisal
Race	Family of Origin Work Values	School Transition Smoothness	Work Readiness Scale
Parent Socioeconomic Status	Parent Intentional Interactions	Work Effectiveness Skills	
	Family of Origin Career Development Support		
Present Family			
Sex	Present Family Functioning Patterns	Motivated Strategies for Learning	Career Maturity Work Effectiveness Self-Appraisal
Race	Present Family Work Values		Work Readiness Scale
Present Socioeconomic Status	Present Family Work Stress		
	Present Family Career Development Support		

Individual Characteristics

Both of the adult models included sex, race, and socioeconomic status as measured by Hollingshead's (1975) four factor index of social status. The family of origin model included parental socioeconomic status, while the present family model incorporated respondents' current family socioeconomic status. In addition, the present family model included respondents' current marital status (married/not married) and parental status (children/no children).

Family Characteristics

Family functioning patterns were included in both of the adult models as were family work values and a measure of family career-development support. Information about family functioning patterns was gathered using nine of Bloom's (1985) family functioning scales, comprising a total of 45 items (six fewer scales than were included in the adolescent study). Respondents were asked to respond to the items twice; once from the perspective of the family in which they grew up (family of origin) and once from the perspective of their present family situation.

The family work values scales, adapted from instruments developed by Mortimer et al. (1986) consisted of ten items reflecting extrinsic and intrinsic work orientations, work autonomy, and work/family harmony values. Study participants responded separately to two identical sets of items: one reflecting family of origin and one reflecting present family work values.

Career development support was similarly assessed using two identical sets of five items for family of origin and present family. Developed for the study, these items reflected financial, emotional, and informational types of support.

The family of origin model also included indicators of parent intentional interactions and work-family stress. Data regarding intentional interactions was collected using a ten-item scale based on the work of Young and Friesen (1992) which was developed and used for the adolescent portion of the study. Work-family stress was assessed using a two-item scale developed for the study which reflected the bidirectional permeability of work/family boundaries (Chow & Berheide, 1988).

Learning Processes

Both of the adult school-to-work transition readiness models included motivated strategies for learning as a construct. In addition, the family of origin model addressed the smoothness of the transition from high school to further schooling. The goal of transition efficiency or smoothness is a key element of current school-to-work policy initiatives such as the School-to-Work Opportunities Act.

Respondents' learning strategies were assessed using 20 items reflecting four scales of the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich et al., 1991). These scales assessed extrinsic and intrinsic motivations for learning, self-efficacy, and critical thinking. Two items developed for the study measured the smoothness of respondents' transition from high school to further schooling in terms of time lapse and consistency of study interest areas.

Readiness for Transition from School to Work

Transition readiness in the adult models was operationalized using the same two measures of career maturity as in the adolescent study; Holland's 18-item MVS scale (Holland et al., 1985), a measure of vocational identity, and Osipow's 18-item CDS (Osipow et al., 1980), a measure of career indecision. In addition to the transition readiness indicators in the adolescent model, the adult study included self-assessments of personal effectiveness in work and work readiness as outlined by the Secretary's Commission on Necessary Skills (SCANS) (1991).

The work effectiveness construct was assessed using a three-item scale developed for the study which reflected a self-appraisal of basic work-effectiveness indicators (College Entrance Examination Board, 1978): past work performance, ability to compete for employment, and future capacity for advancement in a chosen occupation. The work readiness construct was assessed using a ten-item scale developed for the study based on the ten workplace competency areas outlined in the 1991 SCANS report, *What Work Requires of Schools*.

Data Collection

Data to examine the adult models of transition readiness was collected in the same four states as the adolescent data: Arizona, Georgia, Minnesota, and Pennsylvania.

Leaders in vocational education were asked to nominate two-year colleges that were representative of those in their states offering one- and two-year occupational programs. Data collection coordinators in participating schools supervised distribution and collection of study questionnaires from classes of students that were judged to be representative of the adult student population enrolled in one- and/or two-year occupationally focused programs at the college.

Data collection began in the summer of 1994 and continued through December of the same year. A total of 980 instrument responses was received. Of these, 879 (90%) contained complete datasets which were used in testing the proposed models of family contribution to adult school-to-work transition readiness.

Of the 879 usable responses received, 19.7% were from Arizona, 38.5% from Georgia, 14.8% from Minnesota, and 26.1% from Pennsylvania. The possibility of bias due to varying regional response rates was assessed by comparing mean scores of key dependent and independent variables according to state in a series of one-way analyses of variance. Only two systematic variations according to state were discovered, and neither appeared troubling, since both variables were treated as part of larger composite constructs during model testing. One difference was that Pennsylvania respondents reported greater ($p \leq .05$) degrees of vocational identity than respondents in the other three states. In addition, Georgia respondents reported greater degrees ($p \leq .05$) of one (extrinsic orientation) of the four family work values in their present family than did respondents in the other three states.

Age and race of the adult respondents approximated that of two-year college students nationally. Of the sample, 16.7% were below 21 years, 25.8% were 21-25 years, 13.8% were 26-30 years, 13.4% were 31-35 years, and 22.1% were 36 years of age or older. Nationally, about 56% of students in two-year postsecondary institutions are 24 years of age or older. Whites comprised 76.7% of respondents and nonwhites, 23.3%. Nationally, 72.1% of students in two-year postsecondary schools are white, and 26.2% are nonwhite (Smith et al., 1994).

More of the adult student respondents were female (75%) than male (25%). Nationally, females do outnumber males in two-year college programs by about 57% to

43% (Smith et al., 1994). However, the study sample does, by comparison, overrepresent females.

In terms of parental status, 50.5% of the present study sample report having children, compared to 49.5% who do not. Nationally, 57.7% of first-time two-year college students report having children compared to 28.8% who do not (Smith et al., 1994). (Note: Percentages reported in Smith et al.'s *Condition of Education* do not always total to 100% due to missing data.) A total of 58.8% of present study respondents reported being married, and 41.2% reported being single. National figures for first-time two-year college enrollees identify 34.8% of students as married and 59.4% as single (Smith et al., 1994). Thus, although the present study sample appear to represent the parental status of two-year college learners fairly well, it may be that the sample somewhat overrepresented persons who were married.

Instrument Reliability

Estimates of the internal consistency of scales and subscales contained in the adult instruments are shown in Table 7. As shown, reliability estimates for the majority of the construct indicators were at or above acceptable levels (Borg & Gall, 1989). As in the analysis of the adolescent data, some of the individual family functioning scale reliabilities were lower than desirable. This was particularly the case for the scales dealing with disengagement and authoritarianism in the family. Individual family functioning scales were, however, not used in subsequent analysis but were grouped according to factor structures for subsequent testing of the hypothesized structural models of adult transition readiness.

Factor Structures for Adult Model Construct Indicators

The underlying factor structures for indicators of constructs in the adult models of transition readiness were examined using principal components factor analysis. The derived factor matrices, displayed in Table 8, confirmed single factors for learning strategies, school-to-work transition readiness, and work values characteristic of the family of origin and present family. Interesting differences were found, however, between family functioning patterns as seen by respondents for their present families versus their families of origin.

Table 7
Adult Instrument Scale Reliabilities

Instrument Scales	Present Study	Original Disseminated Reliability
My Vocational Situation	.85	.80s
Family of Origin Career Development Support	.83	NA
Present Family Career Development Support	.95	NA
Work/Family Stress	.66	NA
Work Effectiveness Self-Appraisal	.51	NA
Present Family Work Values (Total)	.77	NA
Family Relatedness	.65	NA
Extrinsic Orientation	.66	NA
Intrinsic Orientation	.69	NA
Work Autonomy	.55	NA
Family of Origin Work Values (Total)	.88	NA
Family Relatedness	.67	NA
Extrinsic Orientation	.77	NA
Intrinsic Orientation	.77	NA
Work Autonomy	.73	NA
Learning Strategies (Total)	.85	NA
Extrinsic Motivation	.69	.62
Intrinsic Motivation	.68	.74
Self-efficacy	.74	.93
Critical Thinking	.73	.80
Intentional Interaction Scale	.86	NA
Work Readiness Scale	.83	NA
Career Decision Scale	.88	.84
School Transition	.79	
Family Functioning Scales		
Family of Origin		
Cohesion	.83	.78
Expressiveness	.80	.77
Active/Recreation Orientation	.74	.57
Organization	.61	.74
External Locus of Control	.68	.67
Disengagement	.34	.66
Democratic Family Style	.78	.65
Laissez-Faire Family Style	.69	.71
Authoritarian Family Style	.57	.40
Enmeshment	.70	.78
Present Family		
Cohesion	.80	.78
Expressiveness	.78	.77
Active/Reaction Orientation	.68	.57
Organization	.62	.74
External Locus of Control	.61	.67
Disengagement	.33	.66
Democratic Family Style	.66	.65
Laissez-Faire Family Style	.65	.71
Authoritarian Family Style	.50	.40
Enmeshment	.74	.78

Table 8
Derived Factors for Adult Model Constructs

Constructs	Factors and Scales	Scale Loadings
Family Functioning Patterns—Present Family	*Factor 1* (Proactive)	
	Expressiveness	.88
	Cohesion	.86
	Democratic Decision-Making	.81
	Active/Recreation Orientation	.79
	External Locus of Control	-.74
	Disengagement	-.59
	Factor 2 (Reactive)	
	Authoritarian	-.75
	Organization	-.56
	Factor 3 (Inactive)	
	Enmeshment	.90
	Laissez-Faire	.66
Family Functioning Patterns—Family of Origin	*Factor 1* (Proactive)	
	Expressiveness	.88
	Democratic Decision-Making	.86
	Cohesion	.86
	Active/Recreation Orientation	.84
	External Locus of Control	-.81
	Factor 2 (Indifferent)	
	Laissez-Faire	.78
	Organization	-.72
	Authoritarian	-.54
	Disengagement	.51
	Factor 3 (Suffocating)	
	Enmeshment	.91
Motivated Strategies for Learning	*Factor 1*	
	Self-Efficacy	.84
	Intrinsic Motivation	.83
	Critical Thinking	.79
	Extrinsic Motivation	.57
Readiness for School-to-Work Transition	*Factor 1*	
	My Vocational Situation	.81
	Career Decision Scale	-.74
	Work Effectiveness Self-Appraisal	.69
	Work Readiness Scale	.51
Family of Origin Work Values	*Factor 1*	
	Intrinsic Orientation	.87
	Work Autonomy	.87
	Extrinsic Orientation	.78
	Family Relatedness	.72
Present Family Work Values	*Factor 1*	
	Work Autonomy	.83
	Intrinsic Orientation	.79
	Extrinsic Orientation	.70
	Family Relatedness	.52

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For both present family and family of origin, a factor labeled proactive functioning emerged. Proactive functioning is characterized by traits such as family expressiveness, cohesion, an active/recreation orientation, an external locus of control, and democratic decision-making. In addition, the adult respondents saw their present families in ways that were labeled reactive and inactive in functioning style compared to their families of origin, where functioning style factors labeled indifferent and suffocating emerged. Reactive families are characterized by a lack of organization and leadership in setting family functioning guidelines and limits. Indifferent families not only lack organization, leadership, and rules to live by, but also seem to have members who are casual to the point of being disengaged from one another with respect to their day-to-day activities. Inactive families lack capacity for action because they either cannot set guidelines for family living (laissez-faire) or are overly tied to the present family system (enmeshed).

Suffocating families are those characterized primarily by enmeshment, which has been described elsewhere as "a familial environment [where] members are undifferentiated from or overly dependent on [one another]" (Minuchin, Montalvo, Guerney, Rosman, & Schumer, 1967, p. 309).

The underlying structures of the proactive and inactive family functioning factors for the adults' present family are identical to the factors that emerged for family functioning in the adolescent portion of the study. However, the other family functioning factors based on adult perceptions have structures that vary from the adolescents. Prior research has shown that adults and adolescents may view the same aspects of family functioning within their families differently. Penick and Jepsen (1992) found, for example, that different subcomponents of family functioning were significant predictors of vocational identity among 11th-grade students when perceptions of students, mothers, and fathers were compared. It may be, however, that the fundamental nature of family functioning is actually conceptualized differently by adolescents and adults, and that adults may also conceptualize family functioning differently in their present families and in their families of origin as well. The derived family functioning factors outlined in Table 8 were used in the subsequent testing of the adult transition models in the present study.

Analysis

The two adult-transition readiness models were examined using LISREL Version 8 (Joreskog & Sorbom, 1993), constraining the models to assumptions similar to ordinary least squares (no latent constructs). Direct, indirect, and total effects were estimated for the hypothesized linkages in the models.

Results and Discussion

Means and standard deviations for the observed variables in the adult models are presented in Table 9.

Respondent Characteristics

As with the adolescents, adult respondents tended to view their families more positively than negatively. For both present family and family of origin, adults saw their families as more cohesive, expressive, and organized than externally controlled, laissez-faire, and enmeshed. In several areas, it appeared respondents viewed their present families more positively than their families of origin, for example, in the areas of cohesion, expressiveness, and democratic decision-making.

As expected, the adult respondents reported higher levels of vocational identity and lower levels of career indecision than the adolescents (see Table 3).

Table 9
Means and Standard Deviations for Adult Observations

Variable	Mean	SD	Min.-Max. Score
Present Socioeconomic Status	35.98	6.67	14-66
Parent Socioeconomic Status	37.28	8.62	14-66
Parent Intentional Interaction	29.34	6.11	10-40
Career Development Support			
Present Family	7.80	5.28	5-15
Family of Origin	10.36	2.82	5-15
Work-Family Stress	3.13	1.70	2-6
Present Family Work Values			
Family Relatedness	7.01	2.07	3-12
Extrinsic Orientation	8.40	1.70	3-12
Intrinsic Orientation	9.17	1.60	3-12
Work Autonomy	5.73	1.21	2-8
Family of Origin Work Values			
Family Relatedness	5.18	1.52	2-8
Extrinsic Orientation	8.32	2.03	3-12
Intrinsic Orientation	8.12	2.14	3-12
Work Autonomy	5.19	1.53	2-8
School Transition	6.19	.90	3-7

Table 9 (continued)

Variable	Mean	SD	Min.-Max. Score
Family Functioning Patterns			
Present Family			
Cohesion	15.98	3.11	5-20
Expressiveness	15.17	3.08	5-20
Active/Recreation Orientation	14.67	2.96	5-20
Organization	14.68	2.74	5-20
External Locus of Control	9.95	2.62	5-20
Disengagement	11.73	2.20	5-20
Democratic Decision-Making	13.71	2.89	5-20
Laissez-Faire	9.51	2.67	5-20
Authoritarian	12.35	2.57	5-20
Enmeshment	9.82	2.91	5-20
Family of Origin			
Cohesion	14.73	3.51	5-20
Expressiveness	13.29	3.44	5-20
Active/Recreation Orientation	13.36	3.35	5-20
Organization	14.91	2.74	5-20
External Locus of Control	10.99	3.00	5-20
Disengagement	12.32	2.27	5-20
Democratic Decision-Making	11.78	3.34	5-20
Laissez-Faire	9.40	2.92	5-20
Authoritarian	13.58	2.76	5-20
Enmeshment	10.17	2.87	5-20
Learning Strategies			
Extrinsic Motivation	12.62	2.55	4-16
Intrinsic Motivation	12.16	2.00	4-16
Self-Efficacy	12.43	1.94	4-16
Critical Thinking	11.29	2.16	4-16
Transition Readiness			
My Vocational Situation	11.43	5.29	0-18
Career Decision Scale	31.11	8.27	18-72
Work Readiness Scale	27.10	5.25	10-40
Work Effectiveness Self-Appraisal	7.99	1.57	3-11

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Family of Origin Contributions to Adult School-to-Work Transition Readiness

Table 10 displays the intercorrelations among variables in the hypothesized model of family of origin contributions to adult school-to-work transition readiness. The estimated direct, indirect, and total effects among the variables in the model are provided in Table 11.

Total Effects

Of the 11 variables specified in the family of origin model, 5 exerted significant total effects on adult school-to-work transition readiness. These were race, learning strategies, and all three family of origin functioning styles: (1) proactive functioning, (2) indifferent functioning, and (3) suffocating functioning. Motivated strategies for learning had the greatest total effect and race the least.

The direction of the effects of the family functioning styles were in the expected directions and consistent with the findings for adolescents in the study. Proactive functioning exerted a positive effect on transition readiness, while indifferent and suffocating functioning styles in the family of origin exerted negative effects on adult school-to-work transition readiness. In contrast to the adolescent findings, sex and family of origin work values did not exert significant total effects on transition readiness for adults in the hypothesized model of family of origin influences.

These findings provide evidence that a relational view of development is appropriate for understanding the process by which learners achieve readiness for school-to-work transition. They also support a convincing body of developmental literature focusing on how family relationships can promote or impede later developmental competence during adulthood. In a study of 604 undergraduate and graduate students, for example, Kinnier et al. (1990) found that enmeshment (feeling pressured to spend most of one's free time with one's family) in the family of origin was significantly associated with difficulty in making career decisions. Penick and Jepsen (1992) also found that enmeshment in the family contributed negatively to the development of vocational identity.

Table 10

Intercorrelations Among Variables in the Adult Family of Origin Transition Readiness Model

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proactive Functioning	1.00												
2. Indifferent Functioning	-.16	1.00											
3. Suffocating Functioning	-.18	-.02	1.00										
4. Intentional Interactions	.63	-.21	-.07	1.00									
5. Family Work Values	.29	-.10	.03	.42	1.00								
6. Family of Origin Career Development Support	.58	-.04	-.10	.53	.29	1.00							
7. Learning Strategies	.09	-.10	-.01	.25	.26	.03	1.00						
8. School Transition Smoothness	.30	-.01	.00	.28	.12	.46	-.02	1.00					
9. Transition Readiness	.16	-.16	-.20	.13	.05	.05	.32	.04	1.00				
10. Sex	.02	-.08	-.02	.01	.08	.10	-.01	.10	.03	1.00			
11. Race	.00	.03	-.03	-.03	-.06	.03	.00	.09	.09	-.03	1.00		
12. Parent Socioeconomic Status	.18	.02	-.05	.15	.06	.24	-.02	.30	.00	.06	.14	1.00	

Table 11

Direct (D), Indirect (I), and Total (T) Effects of Variables in the Model of Family of Origin Role in Adult School-to-Work Transition Readiness (Standardized Coefficients)

	Transition Readiness			*Learning Strategies*			*School Transition Smoothness*			*Proactive Functioning*		
Variable	D	I	T	D	I	T	D	I	T	D	I	T
Learning Strategies	.31*	...	.31*									
School Transition	.05	...	.05									
Proactive Functioning	.13*	-.02	.11*	-.08*	...	-.08*	.04	...	.04			
Indifferent Functioning	-.13*	-.01	-.14*	-.04	...	-.04	.03	...	.03			
Suffocating Functioning	-.17*	-.01	-.18*	-.03	...	-.03	.06*	...	.06*			
Intentional Interaction	-.02	.09*	.07	.28*	...	.28*	.06	...	.06			
Family Work Values	-.06	.06*	.01	.21*	...	.21*	-.03	...	-.03			
Family Career Development Support	-.05	-.02	-.07	-.13*	...	.13*	.37*	...	.37*			
Sex	.03	.01	.03	-.01	.01	-.01	.06*	.03	.09*	.01	...	.01
Race	.09*	.01	.09*	.03	-.03*	.01	.05	.00	.05	-.03	...	-.03
Socioeconomic Status	-.03	.02	-.02	-.03	.01	-.02	.19*	.10*	.29*	.18*	...	.18*

Indifferent Functioning			*Suffocating Functioning*			*Intentional Interaction*			*Family Work Values*			*Family Career Development Support*		
D	I	T	D	I	T	D	I	T	D	I	T	D	I	T
-.08*	...	-.08*	-.02	...	-.02	-.01	...	-.01	.07*	...	.07	.08*	...	.08*
.02	...	.02	-.03	...	-.03	-.05	...	-.05	-.07*	...	-.07*	-.01	...	-.01
.02	...	.02	-.04	...	-.04	.16*	...	.16*	.06	...	.06	.24*	...	.24*

*$t \geq 1.96$; $p \leq .05$; Sex: 1 = male, 2 = female; Race: 0 = nonwhite, 1 = white

Direct Effects

The significant direct paths among the variables in the model of family of origin influences on adult school-to-work transition readiness are displayed in Figure 4. Each of the variables with significant total effects on transition readiness also exhibited significant direct effects. Motivated learning strategies such as critical thinking, self-efficacy, and extrinsic and intrinsic motivation were positively associated with school-to-work transition readiness. All three of the family of origin functioning styles had significant direct effects on transition readiness; proactive functioning had positive effects, while inactive and suffocating functioning styles had negative effects. None of the three family of origin functioning styles was linked to motivated strategies for learning.

Parent intentional interaction regarding careers in the family of origin were linked directly to motivated strategies for learning, however, as were family work values and family career development support. Interestingly, the link between family career development support and learning strategies was negative, suggesting that too much support from the family of origin may be associated with less self-efficacy and less extrinsic and intrinsic motivation for learning in adulthood.

Another direct link shown in the model is the interaction between a suffocating family functioning style and a smooth transition from high school to higher education. A possible explanation may be that a suffocating family style may contribute to unquestioned decisions about further education for individuals who accept the advice they receive.

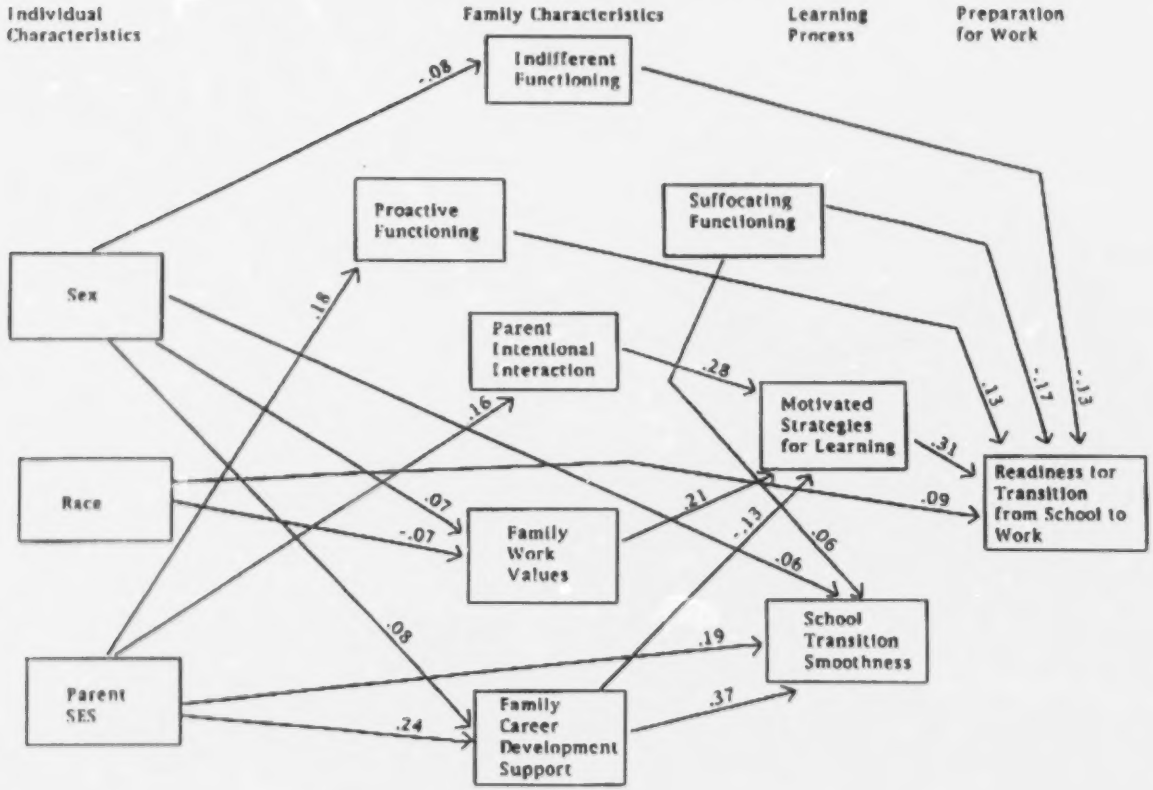
Sex

Interestingly, respondents' gender did not contribute significantly to transition readiness in the adult family of origin model, as it had in the adolescent model. However, adult responses did support the contention that the family is experienced differently by males and females. Although there were no significant direct or indirect links between sex and transition readiness in the family of origin model (Table 11), there were significant direct links between sex and family career-development support, family work values, parent intentional interaction, and indifferent family functioning. Males saw their families of origin as more indifferent, while females saw their families as having stronger family work values and providing greater degrees of career development support.

Figure 4

Adult Transition Readiness Model

Significant Direct Effects* for Family of Origin Variables



*p ≤ .05; Sex: 1 = male, 2 = female; Race: 0 = nonwhite, 1 = white

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Race

Consistent with the adolescent findings, being white was directly more supportive of transition readiness than being a member of another racial group. However, people of color saw their families of origin as having stronger family work values than whites.

Socioeconomic Status

The socioeconomic status of respondents' parents was linked directly to proactive family functioning, parent intentional interactions, family career-development support, and school transition smoothness. These findings support prior research indicating that family functioning varies according to socioeconomic status (e.g., Hoffman, 1984; Kohn, 1977). Because socioeconomic status was not significantly linked to transition readiness directly or indirectly, however (Table 11), they do not indicate that socioeconomic status itself during childhood is a determinant of adult readiness for further school-to-work transition.

Indirect Effects

Of the variables in the family of origin model of adult school-to-work transition readiness, only two variables exerted significant indirect effects on transition readiness (Table 11). These included parents' intentional interactions regarding careers and family work values, and both made contributions in the positive direction. Neither of these variables exerted significant total effects on transition readiness during adulthood, however. In contrast to the findings for adolescents, day-to-day family functioning style in the family of origin did not contribute indirectly to transition readiness for adults.

Other significant indirect links in the model included those between race and learning strategies and between socioeconomic status and post-high school education transition smoothness. Being nonwhite was negatively associated with development of motivated strategies for learning through an indirect path, while socioeconomic status was positively and indirectly associated with smoothness of the post-high school educational transition (Table 11). In contrast to the adolescent model, there was no significant indirect link between socioeconomic status and transition readiness in the adult family of origin model.

Present Family Contributions to Adult School-to-Work Transition Readiness

Table 12 provides the intercorrelations among variables included in the hypothesized model of present family contributions to adult school-to-work transition readiness. Estimated direct, indirect, and total effects among the variables in the model are displayed in Table 13.

Total Effects

Of the variables included in the hypothesized model of present family influences on adult school-to-work transition readiness, seven exhibited significant total effects. These were (1) motivated strategies for learning, (2) a proactive, present family functioning style, (3) an inactive present family functioning style, (4) present family work values, (5) race, (6) present socioeconomic status, and (7) present marital status (Table 13). Learning strategies and inactive family functioning style had the greatest effect, followed closely by present socioeconomic status. Present family work values, socioeconomic status, and marital status exerted the smallest of the significant effects. As expected, the effect of a proactive family functioning style was positive, while that of an inactive family style was negative.

Direct Effects

Four of the seven variables with significant total effects were linked directly to adult transition readiness in the present family model: (1) motivated strategies for learning, (2) inactive family functioning, (3) race, and (4) present socioeconomic status (Figure 5). A proactive family functioning style and present family work values made direct contributions to motivated strategies for learning. Sex was linked to how respondents viewed work-family stress and proactive and inactive functioning in the present family. Males were more likely to characterize their present families as inactive in functioning style, while females were more likely to see them as proactive. Interestingly, males perceived greater work/family stress than females. Maccoby (1992) has documented this outcome over several decades of research.

Table 12

Intercorrelations Among Variables in the Adult Present Family Transition Readiness Model

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proactive Functioning	1.00												
2. Reactive Functioning	-.11	1.00											
3. Inactive Functioning	-.31	.04	1.00										
4. Present Family Career Development Support	.18	.04	.04	1.00									
5. Work-Family Stress	-.05	.08	.17	.04	1.00								
6. Present Family Work Values	.13	-.12	-.04	-.01	.03	1.00							
7. Learning Strategies	.17	-.09	-.10	.03	.02	.36	1.00						
8. Transition Readiness	.23	-.05	-.31	.10	.05	.09	.32	1.00					
9. Sex	.10	-.01	-.08	.00	-.11	.08	-.01	.03	1.00				
10. Race	.04	.08	-.01	.04	.05	-.11	.00	.09	-.03	1.00			
11. Present Socioeconomic Status	.07	.08	.00	.10	.34	.01	.03	.22	-.01	.12	1.00		
12. Marital Status	.20	.02	.00	.57	.06	.00	.02	.13	-.01	.05	.20	1.00	
13. Parental Status	.05	-.12	.02	.30	-.08	.10	.06	.04	.11	-.09	-.06	.38	1.00

Table 13

Direct (D), Indirect (I), and Total (T) Effects of Variables in the Model of Present Family Contribution to Adult School-to-Work Transition Readiness (Standardized Coefficients)

	Transition Readiness			*Learning Strategies*			*Proactive Functioning*			*Reactive Functioning*		
Variable	D	I	T	D	I	T	D	I	T	D	I	T
Learning Strategies	.28*	...	.28*									
Proactive Functioning	.06	.03*	.09*	.11*	...	.11*						
Reactive Functioning	-.04	-.01	-.05	-.04	...	-.04						
Inactive Functioning	-.27*	-.02	-.28*	-.06	...	-.06						
Family Career Development Support	.04	.00	.04	.02	...	.02						
Work-Family Stress	.03	.01	.04	.02	...	.02						
Present Family Work Values	-.03	.09*	.06*	.34*	...	.34*						
Sex	.01	.02	.03	-.05	.04*	-.01	.11*	...	.11*	.01	...	.01
Race	.06*	.01	.07*	.04	-.03*	.01	.02	...	.02	.06	...	.06
Present Socioeconomic Status	.18*	.02	.20*	.01	.02	.03	.03	...	.03	.05	...	.05
Marital Status	.04	.03	.07*	-.03	.02	-.01	.21*	...	.21*	.06	...	.06
Parental Status	.02	.01	.03	.03	.03*	.07	-.04	...	-.04	-.13*	...	-.13*

Inactive Functioning			*Family Career Development Support*			*Work-Family Stress*			*Present Family Work Values*		
D	I	T	D	I	T	D	I	T	D	I	T
-.09*	...	-.09*	.00	...	.00	-.11*	...	-.11	.06	...	.06
-.01	...	-.01	.02	...	.02	.00	...	.00	-.10*	...	-.10*
.00	...	.00	.00	...	.00	.33*	...	.33*	.03	...	.03
-.01	...	-.01	.53*	...	.53*	.02	...	.02	-.04	...	-.04
.03	...	.03	.10*	...	.10*	-.05	...	-.05	.10*	...	.10*

*$t \geq 1.96$; $p \leq .05$; Sex: 1 = male, 2 = female; Race: 0 = nonwhite, 1 = white; Marital Status: 0 = married, 1 = not married; Parental Status: 0 = no children, 1 = children

Race

As in the adolescent and family of origin models, being white was directly associated with greater readiness for school-to-work transition. Nonwhite respondents perceived stronger work values in their present family than did whites.

Socioeconomic Status

The model of present family influences on adult school-to-work transition readiness is the only one of the three models tested in which socioeconomic status exerted significant direct or total effects. In this model, present socioeconomic status was directly linked to transition readiness. It was also positively linked to work-family stress.

These findings are suggestive of some particularly interesting questions about the role of socioeconomic status in adult life course career development. Why, for example, does present family socioeconomic status directly affect adult transition readiness, but not that of adolescents? What is the relationship between adult socioeconomic status, work-family stress, and participation in adult work-related education?

Marital Status

Respondents who were not married were more likely to see their present families as having a proactive functioning style and providing career development support than those who were married. Respondents without children were more likely to see their present families as reactive in functioning style. Those with children perceived greater present family career development support and stronger present family work values than those without children.

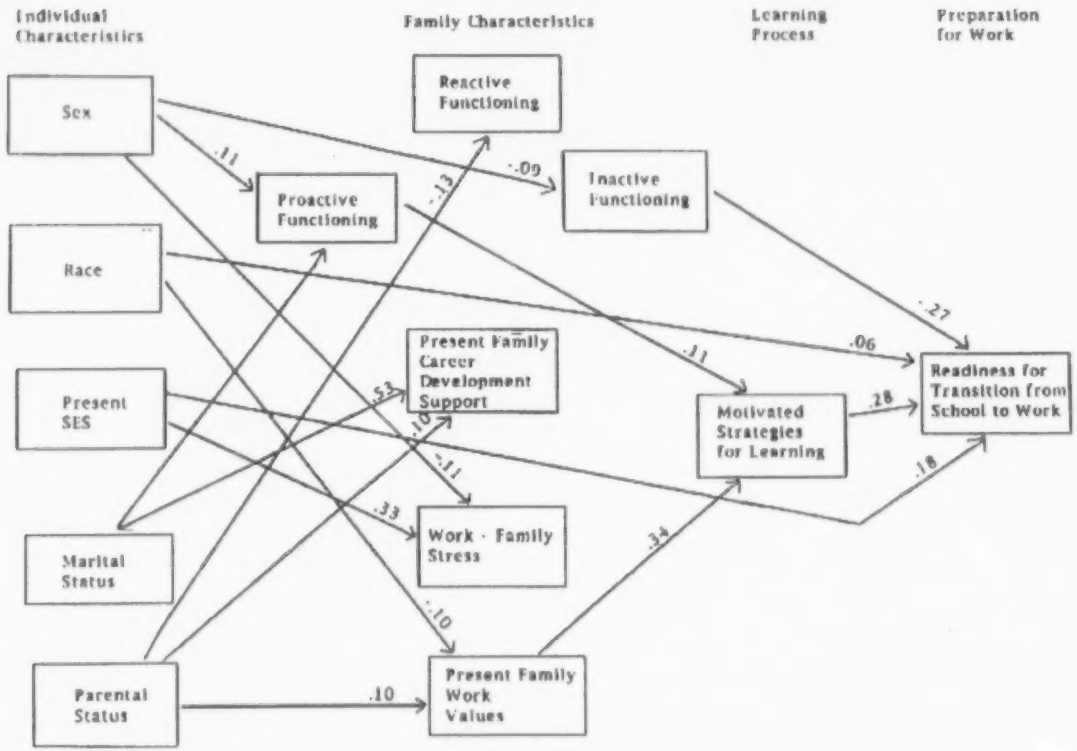
Indirect Effects

As shown in Table 13, only two of the variables in the present family model exerted significant indirect effects on adult school-to-work transition readiness. These included a proactive family functioning style and present family work values. Both of these variables also exerted significant total effects, but not significant direct effects. The significant indirect and total linkages for family work values are identical to those in both the adolescent and family of origin models of school-to work transition readiness which were tested. Work values in the family appear to be important, overall, but exert their effects

Figure 5

Adult Transition Readiness Model

Significant Direct Effects* for Present Family Variables



*p ≤ .05; Sex: 1 = male, 2 = female; Race: 0 = nonwhite, 1 = white; Marital Status: 0 = married, 1 = married; Parental Status: 0 = no children, 1 = children

indirectly, rather than directly. Proactive family functioning is important overall in all three models in that it exerts significant total effects in all three. In the adult family of origin influences model, however, the effect is direct, while in the present family model, the effect is indirect. In the adolescent model, it is both direct and indirect.

ROLE OF THE FAMILY IN SCHOOL-TO-WORK TRANSITION READINESS: ADOLESCENT VOICES

To add further depth to the information provided in the questionnaire responses, follow-up telephone interviews were conducted with a sample of adolescent volunteers who had completed surveys several months earlier. The purpose of the interviews was to gain insight into the experiences of the adolescents as they prepared for and made the transition from high school to further education and/or work. Special attention was given to the family's role in the adolescents' transition experiences during the time since graduation from high school. A phenomenological perspective was used as the basis for carrying out this segment of the research.

Phenomenology is a research tradition that dates back to the work of German philosopher Husserl (1962). As extended by Schutz (1977), Merleau-Ponty (1962), Giorgi (1971), and others, it focuses on the nature of human experience and how it is interpreted. According to phenomenologists, there is no separate (or objective) human reality; there is only what people know their experiences mean to them (Patton, 1990). Phenomenological research typically uses qualitative methods such as storytelling or interviews to gain deeper understanding of the nature and meaning of everyday experiences (van Manen, 1990).

Of the adolescents who completed survey questionnaires, 265 volunteered to participate in follow-up interviews after high school graduation. Fifty were randomly selected for interviews. Fifty-four percent were women, and 46% were men. Twenty-eight percent were people of color, and 72% were white. Of these, 31 could be located and interviewed. They were from all four states in the study. Data collection took place in December of 1994 using a semistructured interview format developed for the study. Interview questions were designed to encourage participants to relate stories about their

post-high school transition experiences and reflect on the family's role in it. Typical questions were, "How are you currently involved in either work and/or school?" "What steps led you from high school to what you are doing now?" "What has this transition been like?" "Describe some experiences you have had with your family about your occupational plans—this could be recently or while you were growing up." "Tell me about a story that stands out in your memory regarding what you learned from your family about the work world." "All in all, what are the factors that account for your being where you are now, in either work and/or school?"

Interviews lasted 15-30 minutes each. No attempt was made to link interviewees with their survey data. All telephone interviews were tape recorded with participants' permission and subsequently transcribed for analysis. Interview transcriptions were analyzed to identify themes regarding the family's role in developing readiness for transition from school to further education and/or employment.

The thematic analysis was carried out using a series of steps consistent with guidelines for phenomenological research outlined by van Manen (1990): (1) review the literature and reflect on the nature of the experience being examined, (2) investigate the experience by collecting narrative data from informants, (3) read and reread the narrative information to interpret it and begin to form a conceptual framework for categorizing the informants' experiences, (4) extract phrases from the text that help lend insight into the informants' experiences, (5) determine broader themes that summarize the more specific categories of experience, (6) write and rewrite the themes into a narrative description that helps make sense of the phenomenon, (7) articulate what has been discovered for use by others interested in the phenomenon.

Three broad thematic categories emerged during the data analysis process. These themes suggested that, regarding post-high school transition events, the adolescents experienced (1) unilateral parent-to-child guidance and support, (2) reciprocal interactions with their parents, and (3) family as a place to interpret reality. Although the themes are not all mutually exclusive, the first two seem to represent a more direct family role in adolescent post-high school transition, while the third theme reflects a more indirect role. The themes, subthemes, and adolescent comments are discussed below. Adolescent respondents are identified by an initial to protect their identities. The selected quotes were chosen as being representative of all the quotes in the same theme.

Unilateral Parent-to-Child Guidance and Support

Unilateral actions within the family are those that involve primarily one-way paths of influence (Grotevant & Cooper, 1988). Four subthemes suggest adolescents experienced a number of unidirectional forms of interaction in the family, most of them parent-to-child. Many of these quotes indicate the role parents play in post-high school transitions.

Helped Financially

One set of experiences described by participants concerns the financial support many of them said they were receiving from their families during their transition from high school to further education and/or work:

> D: Yeah, they're paying for my college right now 'cause I wasn't going to go to college 'cause I didn't have the money. So my mom said that she'd pay for it, and she did. She said she'll pay for it as long as she can.
>
> L: Our agreement is that they'll pay for all my schooling, including books or any other expenses I have. And I basically pay for my, you know, my entertainment, like when I want to go out to eat with my friends.
>
> O: I have the financial means to be going to college right now, which is really nice. And I mean, if I didn't have the money, I wouldn't be going. But as far as emotionally, I feel like it's a good step because it's kind of in between being thrown out into the workforce and living at home with your parents. 'Cause you're still connected with your family in that they're giving you money and, you know, you're living in the dorm and calling home. It's kind of like a step in between. So it's a good kind of springboard for whatever comes next.
>
> F: Mainly I wanted to stay at home, live at home, just 'cause its cheaper, just a little more easy at the time until I know for sure what I want to do before I go out and waste the money.

Conveyed Expectations

The adolescent participants seemed to have experienced interactions within their families, and particularly with parents, that conveyed clear expectations for their future working lives:

> O: My parents both have jobs that they really like. They're with companies that they like, and they're doing things that they're good

at. They always kind of expected us to earn our way along. You know, we haven't been given a free ride. I had three jobs through my senior year, and you know, we've been taught that, you know, there's nothing wrong with getting your hands dirty. A good day's work will make you feel good.

X: Schooling and education and putting your education first, before anything has . . . has been stressed a lot and . . . so it's pretty serious around my household.

Z: I guess . . . big part was my parents. They always pushin' me to be better. I guess than what they had. And my church. They always said you know, you need to go to college and get a career, you know, to be something.

Communicated Words To Live By

In this day of media "sound bites," parents also seemed to pass along their wisdom to children in often-repeated phrases:

J: [They told me . . .] do the best you can and always be there. Do what you're supposed to do. Keep your mouth quiet.

AA: If you're gonna do it, you should do it right. You're responsible for it, and no one else is gonna take the blame for it, if you do it wrong.

U: Do what you're told. Do everything to the best of your ability, and everything should be ok. You have to respect people, too. 'Cause if you don't respect them, they're not gonna really respect you.

M: My parents said, well if we don't work, we're not going to have the extra money. If I work, I'll have the money. If I don't, then I won't.

Provided Career Information and Networking Contacts

Many of the adolescents reported their families provided information about specific careers and/or helped them make connections that enabled them to examine future career options:

F: I was real undecided. I wasn't even thinking about computers 'cause I thought it was gonna be all filled up and gonna be real hard to get a spot. But, I actually took a trip with the family, and I was talking to my aunt, and she works in a corporation, dealing with computers and stuff like that. And she said there are a bunch of job openings and a real demand. So I thought I'd maybe look into it a little more.

DD: The reason why I want to become a police officer is 'cause I live next door to one. He's just kinda meant a lot to our family. I really like helping other people. Mom got me some information about it . . . paramedics, too. She said there would always be a need for that.

AA: I think it was probably my senior year. I mean I went through all the stuff like, you know, I wanna grow up to be rich and live in a big castle. Well, my parents are ranchers, so that's what I know best. I really want to do that. I love being outdoors. And that's the only thing I could come up with that's completely outdoors, you know. There's a minimum amount of people-work involved. They arranged for me to talk to some of the local ranchers.

Reciprocal Interactions with Their Parents

While some of the experiences described by the adolescent interview participants appeared to represent one-way adult-to-child interaction, others suggested a type of communication that was more reciprocal in nature. Some of these exchanges, represented by three subthemes, appeared to be more positive than others.

Showed Interest, Supported, and Openness

One set of family characteristics that seemed to frame reciprocal interactions included parental interest, emotional support, and openness to dialogue:

A: They are constantly asking, you know, how I'm doing. They're interested in my work, they want me to bring stuff home, and they are helping me out.

D: They've always pretty much stuck behind me or any of us, if it's what makes us happy. Even if they know it's wrong. They'll advise us it's wrong, but then they'll say, I support you.

P: Most of the influence [about my career choice] came from my parents and my older brothers about the types of fields that I should go into. I said something I would want to do, and we discussed it. I mean, they wouldn't say no, you can't do that or yes, you can do that. They'd be like, why do you want to do that? It's more like a family-oriented decision-making process. If I chose a direction and was positive about that direction, they were behind me. It was like, OK, we'll support your decision in doing that.

L: Whenever I come home, I, you know, my mom always asks, "What did you do in school today?" And I always, you know, I talk about things with her, and she listens.

K: My parents are behind me, no matter what I do. It's basically whatever I've decided. Just when I need to talk to them, they're always there. If I need their help, like with a decision, I'll ask them, like, what they think, and then from there like I can decide what I should do.

Pushed and/or Controlled

In contrast to interactions that involved parental openness and a give and take, some adolescents experienced interactions in their family that were viewed as controlling in nature, or providing perhaps too much "guidance":

B: It got to that point where they were pushing me just a little too hard and a little too fast. Change is hard. From high school to college . . . with them pushing me so hard it's like, hey, slow down, I've gotta deal with things one at a time. And . . . and for awhile there I was really, you know, reconsidering, am I doing this for them or am I doing this for me. 'Cause they started pushing me too hard, and I was starting to do it for them and not for me. I had to slow down and take a look. I gathered, you know, I have to rethink what I'm doing here. And they just . . . they backed off a lot. Now it's my decision from here.

K: They wanted me to go to college because no one in my family has ever been to college, and they wanted me to be the first, and they pushed me to go to school and, you know, do good. They really pushed.

D: Yeah, they said I should be in the medical field, you know, 'cause my dad's an eye doctor. So he pretty much said that yeah, it's good because then I'll learn a lot. I wanted to be a housewife, and he pretty much said, no, don't. You know, he said, you know, get a life.

AA: They're kind of against my choice and kind of for it because they really don't like the forest rangers 'cause they think they're nosy. They're like, you want to be a forest ranger? You know, my whole family's like, Oh my god!

"Cooled" Interactions

Although many of the adolescents reported experiences that suggested closeness in interactions within the family related to work and post-high school transitions, several offered commentary which suggested that distance, rather than "warmth" and closeness, characterized school-to-work interactions in their families:

T: My mom knows I'm going to college, but she doesn't know about everything else.

E: My family didn't have any input into my decisions. I'm not really close with my family.

E: My dad did three jobs. He worked a lot. But I don't know [what my family thinks about work].

Family as a Place To Interpret Reality

Many of the adolescents in the study described personal experiences that provide insight into how the family may serve more indirectly as a specific context for interpreting reality associated with work and post-high school transitions.

Modeled Work Behaviors

One of the main experiences of adolescents was watching parents set an example through their own behavior. Many of these modeled work behaviors seemed to provide the adolescents with an interpretational framework for imagining their own transitions to future working life.

B: My mom was very determined to get into what she wanted to do, which was the airline. It was kinda neat to watch her you know, struggle to get where she wanted. And she ended up getting what she wanted. And that kinda helped me. If you try hard enough, for long enough you'll get it.

F: Well, my mom's a teacher, and my dad's a pharmacist. Both of them work really hard at it. And the constant thing, always going to school for both of them to learn, to, you know, improve. Real positive for me, just, you know, to get a good job and to be good at what you're doing. It's gonna take a lot of work and a lot of, you know, a lot of determination to do, you know, to get it, get there. They kind of showed me that.

X: Oh yeah, they were real work-oriented, and my mom's always worked full time, my step dad works a couple . . . even for a while a couple of jobs, I mean, work's always been a . . . a big thing. There's nobody lazy in my household. I learned to work hard.

Z: I believe that that's why they were so strong on us going to college is because, I mean, mama worked in a soap factory, and daddy worked on a dredge, and they liked their jobs, but they always wanted us to be in a job where we didn't have to work as hard as they did.

K: My parents showed me work is kind of a blanket, it stays on you because of money.

Worried About Children's Future

Interview participants described a number of experiences which reflect adult uneasiness and anxiety related to their post-high school transition process. This concern provides another perspective on how family experiences may provide interpretational backdrops for future school-to-work transitions:

X: There was a lot of fuss about my decision. My dad's not for it. He thinks it's too dangerous.

A: Well, I guess they've always thought being prepared for paid work was very important. They didn't want me to be a housewife or anything. 'Cause they're always afraid that you know, if I get married, and my husband dies, I won't have anything to do. And you know they just always wanted me to go farther and be all that I can be. You know, always wanted me to have training of some sort so I could always support myself.

CC: My mom said to get a career because from what happened to her . . . she said, get a career because it means financial stability for you, you know not for your husband or nothing. If your husband were to leave you, you still have something, because you have your career. And that could help, you know. My mom, she didn't have a career she just . . . she didn't have anything, she just had a secretarial degree, and it really, you know, didn't help at all. That's what she always tells us, you know, just get a career, just get a career.

Illustrated Realities of Work and Post-High School Transition

Several of the interview participants described other experiences in their families that seemed to permit them to examine the realities of work and of post-high school transition:

W: I sorta saw things from the inside when I grew up. Because my dad's a minister, and my mom's a teacher and . . . so I saw what people did as an institution, like . . . in their daily lives . . . I got to see how teachers think, and I was this little kid running around the church and whatnot. I could see all the background, knowing that holy water's really just tap water and things like that.

N: They have a lot of interesting stories. 'Cause my mom works at the hospital, x-raying . . . she likes to bring home her stories.

L: I think my sister, after she graduated from high school, she just got married. I see how hard it is for them financially, too, just her and

> her husband, just to have one person working, and I think that made me kinda want, not to depend on one person financially.

These voices of American adolescents suggest that the family provides a context for a rich and unique set of experiences related to preparation for work and the school-to-work transition process. Currently, much education-for-work policy and practice either ignores the relationship between work and family (Way & Rossmann, 1994) or ascribes limited roles for families which reflect primarily unidirectional parent-to-child influences (e.g., School-to-Work Opportunities Act and Goals 2000).

The interview data indicate that unidirectional parent-to-child interactions are part of the family-based work-related experience of adolescents. In addition, reciprocal interactions within the family also seem to be part of the adolescent experience. Beyond these aspects, there is another contextual dimension of the family experience for adolescents which serves as a unique sounding board for interpreting work-related experiences and envisioning future school-to-work scenarios. Family "lessons" about school-to-work transition seem to be experienced by adolescents through both more and less direct processes.

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this study was to examine the nature of family contributions to adolescent and adult learners' readiness for transition from school to work and to determine whether the nature of family contributions to transition readiness varied for adolescent and adult learners. Using data from national samples of 1,266 high school seniors and 879 adults in one- and two-year postsecondary occupational education programs, three hypothesized school-to-work transition models were examined via structural equation modeling routines. One model focused on the role of their families in adolescents' readiness for school-to-work transition. A second model examined contributions to adult transition readiness from the family of origin, and the third model reviewed present family perspectives of the adults.

The direct, indirect, and total effects obtained for the models revealed a number of similarities among them but some important differences as well. These are discussed below.

Similarities Among the Models

One important similarity among the derived models is that, in each case, strategies that motivated the respondents toward learning are linked directly to school-to-work transition readiness. In the adolescent and in the adult present family models, day-to-day interactions of the family are linked both directly to transition readiness and indirectly through their contribution to motivated strategies for learning. Family functioning which is proactive in character (e.g., cohesive, expressive, well-organized, active in intellectual and recreational pursuits, and guided by democratic decision-making) is positively linked to motivated strategies for learning and transition readiness. Functioning which is suffocating, indifferent, or inactive (characterized by authoritarian or laissez-faire decision-making, enmeshment, and/or disengagement) is negatively linked to transition readiness. In both adolescent and adult models, family work values also exert a significant positive effect on school-to-work transition readiness.

Another similarity among the three derived models is the direct link between race and transition readiness. For both adolescents and adults, being white is associated with greater readiness for school-to-work transition. These findings may reflect awareness among persons of color of persistent differences in the American employment opportunity structure for whites versus nonwhites, thus permitting whites to be more certain of possible future career direction(s). It has been suggested that the family influences how members interpret the meaning of ethnicity (Reiss, 1981). However, the present findings fail to establish an indirect link between race and school-to-work transition readiness through characteristic patterns of family functioning for either adolescents or adults. This finding is evident in spite of the fact that whites and nonwhites apparently saw their families differently in terms of selected attributes such as proactive functioning and parent participation in schooling (in the adolescent model) and intensity of family work values (in the adult models).

One further similarity between the derived adolescent and adult models is that neither links more general educational processes to development of readiness for school-to-work transition. In the adolescent model, family is shown as contributing in a number of ways to both academic and social integration in school. Such school integration, in itself, however, is not linked to readiness for transition from school to work. In the adult family of origin model, family characteristics are linked to smoothness of the post-high school transition experience, but again, a link to readiness for school-to-work transition is not apparent.

Although current state and federal policy frequently seeks to make transitions between educational levels smoother or more efficient, the results of testing the adult family of origin model in the present study do not suggest that the smoothness of the transition from high school to postsecondary education will necessarily enhance adult readiness for transition to work. Efficiency of the post-high school transition, at least as assessed in this study (length of time and consistency between secondary and postsecondary plans), apparently does not guarantee readiness for school-to-work transition during adulthood. Although the findings may support the widespread belief that past efforts to foster meaningful post-high school transitions have fallen short, they are, nonetheless, consistent with recent adult development literature which suggests that career development is a lifelong process characterized by several, rather than just one, period of career-related questioning and decision-making (Riverin-Simard, 1990). Because the present study used a cross-sectional, rather than a longitudinal, design, it is not possible to draw conclusions about these sorts of changes over time.

In any case, the finding of no direct linkages between school transition smoothness and school-to-work transition readiness for adults, and between integration in school and transition readiness for adolescents, do lend support for two sets of educational reform recommendations currently being discussed. One group of recommendations suggests that secondary schools should expand educational options for bridging the gap from school to work in addition to emphasizing pursuit of further education (Hoachlander, 1995; William T. Grant Foundation, 1988). A second set of recommendations proposes that more attention be given to providing access to work-related learning that extends throughout the lifespan (Bragg & Layton, 1995; The William T. Grant Foundation, 1988).

Differences Among the Models

Although there are a number of similar linkages among comparable constructs in the adolescent and adult models, some variations among them are also worth noting. Two important differences concern the role of learners' sex and socioeconomic status in the three models examined. Another difference concerns varying views of family functioning represented in the three models. A final difference relates to the notion of family as currently experienced by adolescents and adults versus family as recollected by adults.

As can be seen in the models, sex exerted significant direct, indirect, and total effects on transition readiness for adolescents, but no significant effects for sex were evident in either of the adult models of readiness for school-to-work transition. Much literature supports these adolescent-related findings. For example, adolescent females have been found to possess greater degrees of career maturity than adolescent males (Herr & Cramer, 1991; Neely, 1980; Westbrook et al., 1980), and adolescent males and females are known to experience at least some aspects of the family differently (Brooks-Gunn & Reiter, 1990). Although there were sex-based differences among adults in how they viewed the functioning of their present families and families of origin, these differences were not strong enough to affect transition readiness within either adult model. Since prior research has indicated that there are important differences in the ways males and females form their work commitments and enact their work roles (e.g., Kline & Cowan, 1989; Orthner & Pittman, 1986; Pittman & Orthner, 1989), the finding was somewhat surprising. Gender-based differences in such family characteristics as family functioning style, perceived family work values, and family career development support may well be less important in adult career development than other gender-based experience differences within or outside the family.

Socioeconomic status exerted quite different effects in each of the three models tested; significant indirect effects, but no total effects in the adolescent model; no effects at all in the adult family of origin model; and significant total and direct effects, but no indirect effects in the present family model. The different role of socioeconomic status in the adult present family model and the adolescent model is especially interesting. Clearly, for adults, present socioeconomic status contributes directly and positively to transition readiness (though notably still not as strongly as learning strategies and family functioning style).

Yet for adolescents, socioeconomic status contributes only indirectly to transition readiness through the relational aspects of the family.

As indicated earlier, socioeconomic status may affect family functioning in a variety of ways—for example, by mediating the family's access to intellectual, cultural, and recreational resources; its ability to deal with psychological strains; and its opportunities to interact with partners outside the family.

The present findings suggest that these factors seem to be more important to the development of school-to-work transition readiness during adolescence than during adulthood. Such a view would be consistent with both the attachment and individuation models of development (Ainsworth, 1979; Baumrind, 1982; Grotevant & Cooper, 1985, 1986, 1988; Hartup, 1978). These models suggest that children who develop secure attachments with others in their family during early childhood will then become free to explore worlds outside the family as they grow and develop. Perhaps once individuals have developed the competence to leave home with security to make initial school-to-work transitions, they maintain the capacity for subsequent transitions without regard for present family functioning characteristics. Such a speculation must be tentative, however, given that the findings of the present study are based on cross-sectional rather than longitudinal data.

Conclusions and Implications

A number of conclusions can be drawn from the results of this study. *First, the findings seem to suggest that within educational policy and practice, it is appropriate to view preparation for occupational work in connection with the work that is carried out in other life contexts such as the family.* Results illustrate, for example, the cyclical interaction between socioeconomic status (partially determined by work roles), family functioning, development of learning strategies, and preparation of family members for further work roles. Work skills which will upgrade socioeconomic status are certainly critical today. The present findings suggest, however, that these alone will not be the simple magic gateway often sought for ensuring bright occupational futures for subsequent generations. One's success in preparing for occupational work appears to be mediated by the family workplace and how *it* functions; high socioeconomic status will assist, but not

guarantee, effective family functioning, strategies needed for learning, and readiness for school-to-work transition. It seems to make good sense to include families as partners in initiatives designed to improve the transition from school to work.

Secondly, results imply that approaches to involving the family in school-to-work transition (when they are considered at all) have thus far been too limited. Families contribute to school-to-work transition readiness in a number of ways: through their intentional interactions with children about careers and through participation in their children's schooling. But, as shown, parents also contribute to school-to-work transition through the strength of their work values, and the manner in which they go about the day-to-day work of family life.

The present findings indicate that family functioning affects transition readiness both directly and indirectly, through its effect on the development of strategies available for learning. The findings bolster prior research indicating that families have the capacity to function in different ways on a day-to-day basis, and that some of these forms of family functioning are more effective than others in facilitating positive developmental outcomes for members. Thus, it can not be assumed that all families will just naturally possess the capacity to nurture readiness for school-to-work transition.

The most helpful kind of family functioning in facilitating readiness for school-to-work transition is that which we have labeled *proactive*. These kinds of families are cohesive and have a sense of control over their lives. They are well-organized, they speak their mind and manage conflict positively, they seek out ways to grow and to have fun, and they make decisions through reasoned discussion and democratic negotiation. The least helpful kind of family functioning is that which is *inactive*. These families, which actually work against the development of transition readiness, provide a weak or unreasoned foundation for action by members; for example, they may have no framework(s) for decision making, or they may be unable to pursue interests that involve other places or persons outside the family. Families which function in a *dominating* sort of way through autocratic dictates and stern punishment are effective in only limited ways; for example, by ensuring that adolescents can articulate some post-high school plans. However, these types of families may not contribute to school-to-work transition readiness when it comes to having work effectiveness skills and the maturity to make meaningful independent career decisions.

Although much more needs to be learned, *study data points to the notion that the family context may actually provide a more direct link to readiness for school-to-work transition than integration in the school context.* While the family context was found to be linked directly and indirectly to school-to-work transition readiness, no links were documented in this study between transition readiness and general academic and social integration in school. An important aspect of the work/family/education relationship is that the family is in a position to exert influence much before and much after job preparation interventions are undertaken by educational institutions and other agencies. A new and richer vision of parent/family involvement is needed in designing future school-to-work transition initiatives. This view should include helping families become more proactive in their day-to-day functioning; ensuring that families undertake their role in the establishment of work values; nurturing parent involvement in education, such as in helping their children with homework, having discussions about careers, and participating in educational planning.

Beyond considering a new and richer vision of parent/family involvement in designing future school-to-work initiatives, it may also be desirable to *consider ways of actually duplicating helpful types of family-like functioning in other settings such as schools.* Scholars such as Jane Roland Martin (1995), for example, have argued for the creation of schoolhomes or school contexts that serve as a moral equivalent of home. Such settings, emphasizing family-like characteristics as security, safety, nurturance, and affection, would not replace the home, but would fill a domestic vacuum that exists for many children today.

Results suggest that both single-parent families and dual-parent families contribute readiness for transition from school to work. Not surprisingly, however, it does appear that dual-parent families may find it easier to function in proactive ways, interact with their children about careers, and participate in schooling processes. Future policy should give special attention to ways of supporting families with single parents in their efforts to develop learners' capacity for transition from school to work.

The findings of the study further suggest that the experiences of males and females and of majority and minority students differ as they prepare for transition from school to work. Sex and race have significant direct effects on readiness for school-to-work transition, and sex has significant indirect effects also. Future policy should acknowledge

possible gender and race-based differences in work-related learning to ensure that programs are sensitive to the unique life experiences of individuals. The use of a male experience standard (Noddings, 1992), an idealized view of the family, and an instrumental approach to work education are perspectives which may have obscured important differences in the manner by which people prepare for work.

This research lends further substance to an emerging body of literature which has begun to question the adequacy of the conceptualizations of work reflected in state and federal workforce policy (Felstehausen & Schultz, 1991; Rehm, 1989; Way & Rossmann, 1994). In this century, both policy and practice have largely reflected an assumption of separation of occupational work and other life work roles (Chow & Berheide, 1988). This framework, which may have been functional during the industrial era, now appears to be outdated.

Some authors (Coontz, 1992; 1995) have suggested that it is misguided to point to the family as the source of social problems such as blocked access to jobs. They point out that family bashing, like school bashing, is currently a popular activity among both the political left and right, and that simplistic responses to the perceived "breakdown of the family" will not substitute for structural economic and political reform needed to improve well-being. We couldn't agree more.

Our view that more substantive attention should be given to the family in workforce education initiatives should not be interpreted as an assignation of guilt for any real or perceived failings of the family. While our findings do suggest that family functioning is both directly and indirectly predictive of school-to-work transition readiness, we have made no attempt to evaluate the success or failure of past education-for-work programs. Neither have we attempted to assess the weight of the family, relative to the full range of other social, political, and economic structures, in ensuring the success of education for work initiatives. The research does suggest that the family makes important contributions to workforce education in a manner beyond that which is typically recognized. Disregarding or oversimplifying the role of the family in occupational preparation may lead to missed opportunities to nurture and support work-related learning among children and adults and/or to actual interference with it. Much more needs to be learned about how family interacts with other social systems in the development of personal work readiness capacities.

This study raises a number of questions that can be addressed only through implementation of a future workforce education research agenda which acknowledges the interrelationships among work and family. Past workforce education research appears to have been seriously hampered by a number of perspectives which mediate against viewing work and family as interacting spheres of human activity. These include ideologies associated with scientific management, vocational education as instrumental action, the differentiation of social roles according to gender, and an idealized notion of the family. The present study represents a beginning in what should be a full future agenda of research regarding work/family connections in education.

Elsewhere, we have outlined a framework for an agenda (Way & Rossmann, 1994) which suggests giving attention to such issues as how work and family are conceptualized in present educational programs and policies; what is currently taught, and what males and females learn about work and family in current workforce education programs; what social support systems are currently available to individuals and families as they prepare for work and family roles; and what conceptions of evaluation are appropriate for examining the outcomes of workforce education programs that acknowledge work/family interactions. The present study suggests, however, that the challenges ahead are methodological as well as conceptual in nature. Future research is needed that is based on fully representative samples of individuals and families and that permits longitudinal as well as cross-sectional comparisons of school-to-work outcomes in addition to transition processes.

Today's unparalleled discussions regarding educational reform provide an ideal context for giving more substantive attention to linkages between occupational work and other life roles in policy, practice, and research. Doing so will probably require confronting, and giving up, some of our most comfortable ways of thinking about education and life's work roles. However, the present study suggests that there are intriguing possibilities for enhancing workforce education through further exploration of the influences of the family—life's first teacher.

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